



Lumber design values are in accordance with ANSI/TPI 1 section 6.3  
These truss designs rely on lumber values established by others.

RE: 2718981 - DETAILS

MiTek USA, Inc.  
6904 Parke East Blvd.  
Tampa, FL 33610-4115

**Site Information:**

Customer Info: DETAILS Project Name: N/A Model: N/A  
Lot/Block: N/A Subdivision: N/A  
Address: N/A, N/A  
City: N/A State: N/A

**Name Address and License # of Structural Engineer of Record, if there is one, for the building.**

Name: License #:  
Address:  
City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.4  
Wind Code: ASCE 7-16 Wind Speed: 130 mph  
Roof Load: 37.0 psf Floor Load: N/A psf

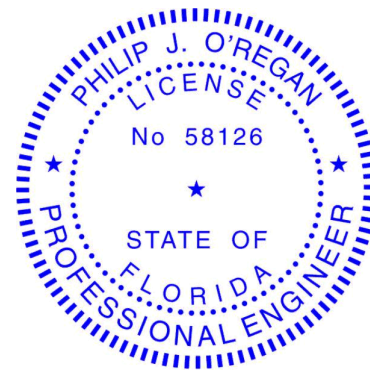
This package includes 20 individual, General Truss Details and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Detail Name	Date	No.	Seal#	Detail Name	Date
1	T23399806	MII-REP10	4/2/21	15	T23399820	MII-VALLEY HIGH WIND2	4/2/21
2	T23399807	MII-T-BRACE 2	4/2/21	16	T23399821	MII-VALLEY SP	4/2/21
3	T23399808	MII-SCAB-BRACE	4/2/21	17	T23399822	MII-VALLEY SP	4/2/21
4	T23399809	MII-REP05	4/2/21	18	T23399823	MII-GE146-001	4/2/21
5	T23399810	MII-GE130-D-SP	4/2/21	19	T23399824	MII-REP13B	4/2/21
6	T23399811	MII-GE130-SP	4/2/21	20	T23399825	MII-STRGBCK	4/2/21
7	T23399812	MII-GE140-001	4/2/21				
8	T23399813	MII-GE170-D-SP	4/2/21				
9	T23399814	MII-GE180-D-SP	4/2/21				
10	T23399815	MII-GE180-D-SP	4/2/21				
11	T23399816	MII-PIGGY-ALT-7-16	4/2/21				
12	T23399817	MII-REP01A1	4/2/21				
13	T23399818	MII-TOENAIL_SP	4/2/21				
14	T23399819	MII-VALLEY HIGH WIND1	4/2/21				

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature.  
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

The truss drawing(s) referenced above have been prepared by  
MiTek USA, Inc. under my direct supervision based on the parameters  
provided by Builders FirstSource-Jacksonville.

Truss Design Engineer's Name: ORegan, Philip  
My license renewal date for the state of Florida is February 28, 2023.

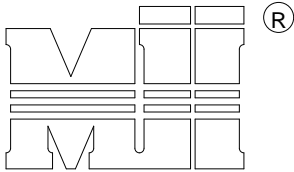


Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

April 2,2021





MiTek USA, Inc.

MAIN TRUSS MANUFACTURED WITHOUT  
FALSE BOTTOM CHORD.

MAIN TRUSS (SPACING = 24" O.C.)

REFER TO THE BOTTOM CHORD BRACING SECTION OF  
THE INDIVIDUAL TRUSS DESIGN FOR MAXIMUM SPACING  
OF CONTINUOUS LATERAL BRACING WHENEVER RIGID  
CEILING MATERIAL IS NOT DIRECTLY ATTACHED TO THE  
BOTTOM CHORD.

VERTICAL STUDS @ 48" O.C.. ATTACHED  
WITH (3) - 10d (0.131" X 3") NAILS AT  
EACH END OF VERTICAL (TYP.).

VERTICAL STUDS TO BE 2 x 4 STUD GRADE  
(OR BETTER) SPF, HF, DF OR SP.  
(BOARD SIZE SPECIFIED IS MINIMUM,  
LARGER SIZE MAY BE USED)

2 x 4 NO. 2 (OR BETTER) SPF, HF,  
DF OR SP FALSE BOTTOM CHORD  
(BOARD SIZE SPECIFIED IS MINIMUM,  
LARGER SIZE MAY BE USED)

FALSE BOTTOM

TRUSS SPAN

NOTES:

1. LOADING: TOP CHORD: (REFER TO THE MAIN TRUSS DESIGN FOR TOP CHORD LOADING).  
BOTTOM CHORD: LL = 0 PSF, DL = 10 PSF.
2. REFER TO THE MAIN TRUSS DESIGN FOR LUMBER AND PLATING REQUIREMENTS.
3. MAXIMUM BOTTOM CHORD PITCH = 6/12.
4. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
5. FALSE BOTTOM CHORD ONLY DESIGNED TO CARRY VERTICAL LOAD. NO LATERAL (SHEAR) LOAD ALLOWED.
6. FILLER MAY EXTEND FOR FULL LENGTH OF TRUSS.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

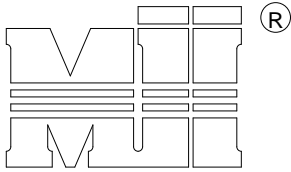
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 33610



MiTek USA, Inc.

Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

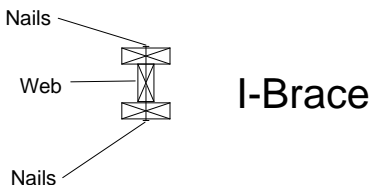
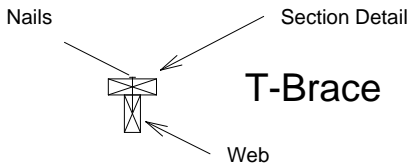
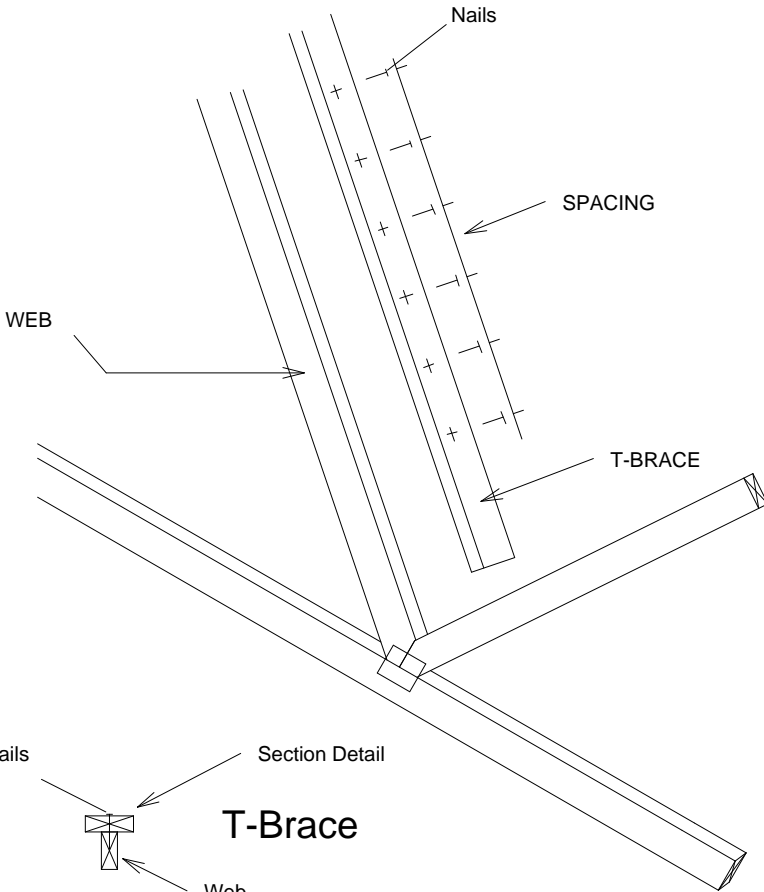
Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

Nailing Pattern		
T-Brace size	Nail Size	Nail Spacing
2x4 or 2x6 or 2x8	10d (0.131" X 3")	6" o.c.
Note: Nail along entire length of T-Brace / I-Brace (On Two-Ply's Nail to Both Plies)		

Web Size	Brace Size for One-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

Web Size	Brace Size for Two-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

T-Brace / I-Brace must be same species and grade (or better) as web member.



This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

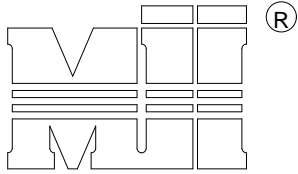
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610

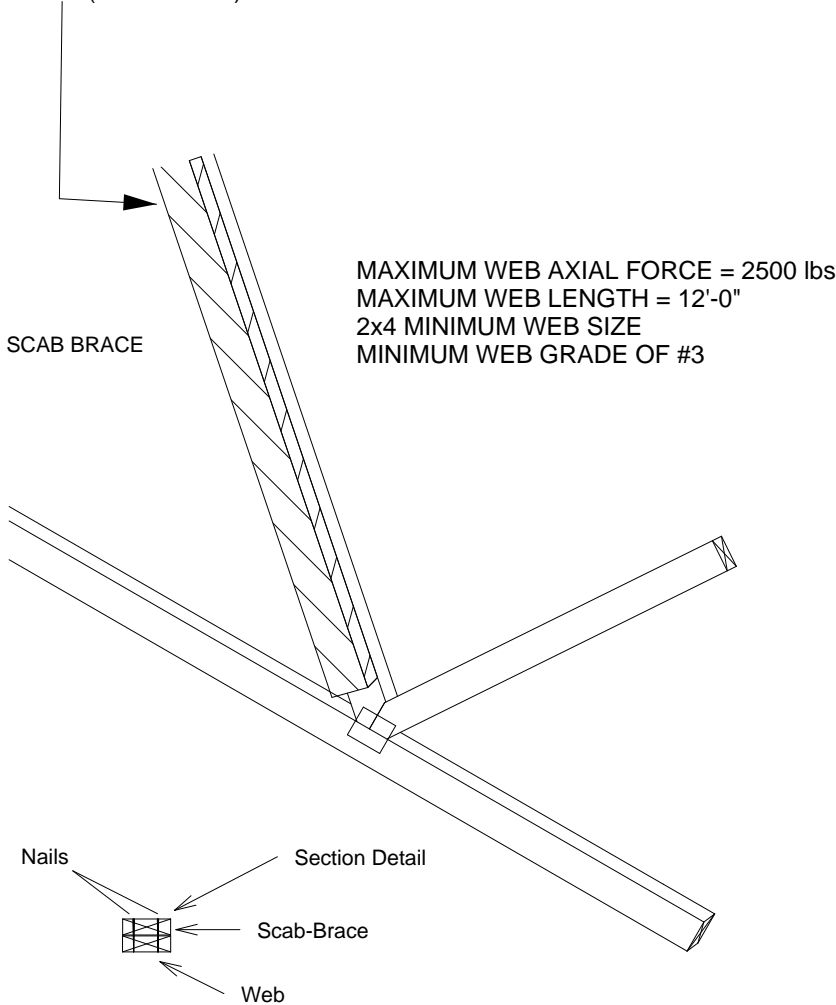


MiTek USA, Inc.

Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.  
Scab must cover full length of web +/- 6".

\*\*\* THIS DETAIL IS NOT APPLICABLE WHEN BRACING IS \*\*\*  
REQUIRED AT 1/3 POINTS OR I-BRACE IS SPECIFIED.

APPLY 2x\_\_\_ SCAB TO ONE FACE OF WEB WITH  
2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.  
SCAB MUST BE THE SAME GRADE, SIZE AND  
SPECIES (OR BETTER) AS THE WEB.



Scab-Brace must be same species grade (or better) as web member.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

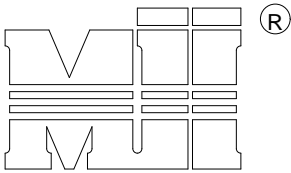
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

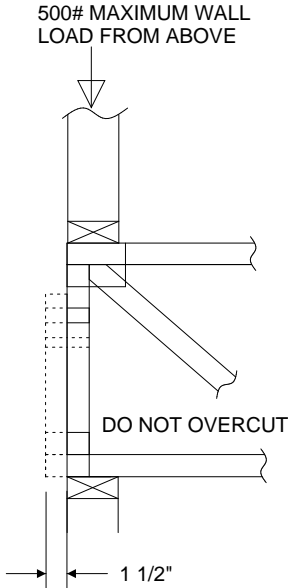


6904 Parke East Blvd.  
Tampa, FL 36610

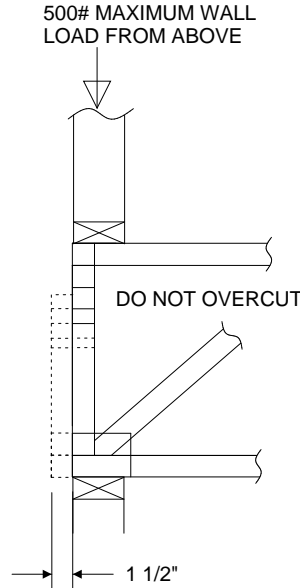


MiTek USA, Inc.

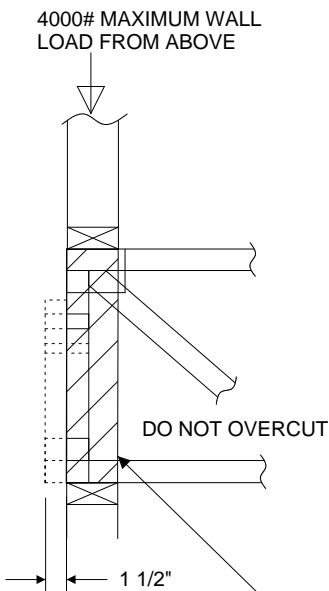
1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
4. LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 4X\_ ORIENTATION ONLY.
6. CONNECTOR PLATES MUST BE FULLY IMBEDDED AND UNDISTURBED.



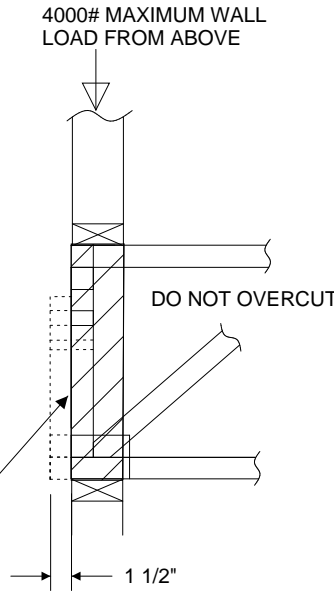
REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



TRUSSES BUILT WITH 4x2 MEMBERS



REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



TRUSSES BUILT WITH 4x2 MEMBERS

ATTACH 2x4 SQUASH BLOCK (CUT TO FIT TIGHTLY) TO BOTH SIDES OF THE TRUSS AS SHOWN WITH 10d (0.131" X 3") NAILS SPACED 3" O.C.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

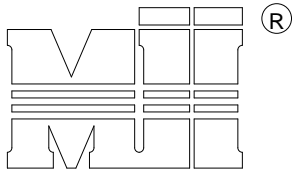
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

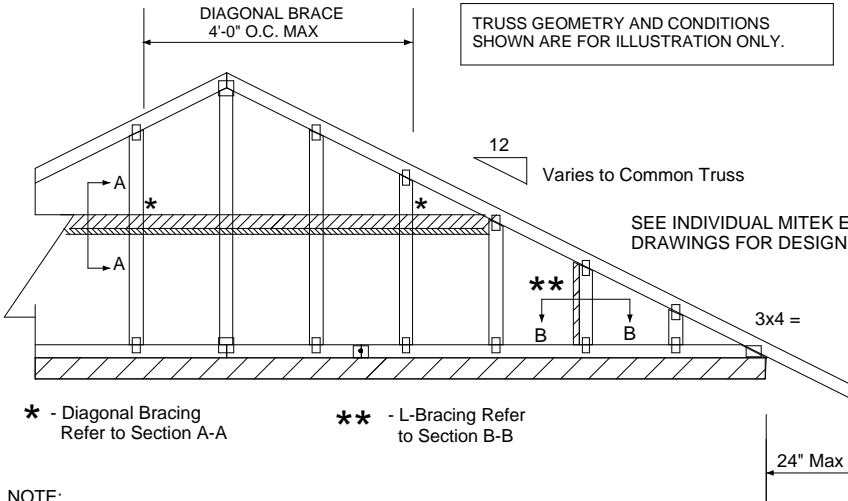
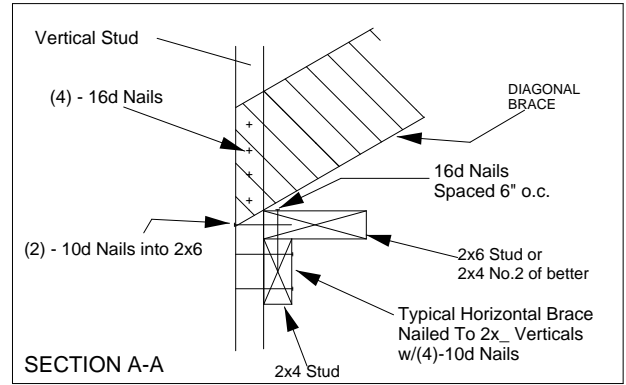
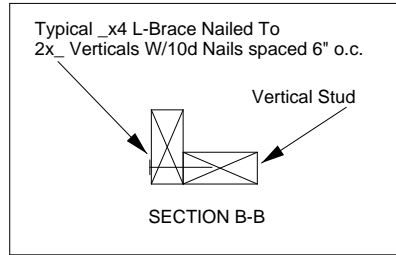
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610



MiTek USA, Inc.



\* - Diagonal Bracing Refer to Section A-A

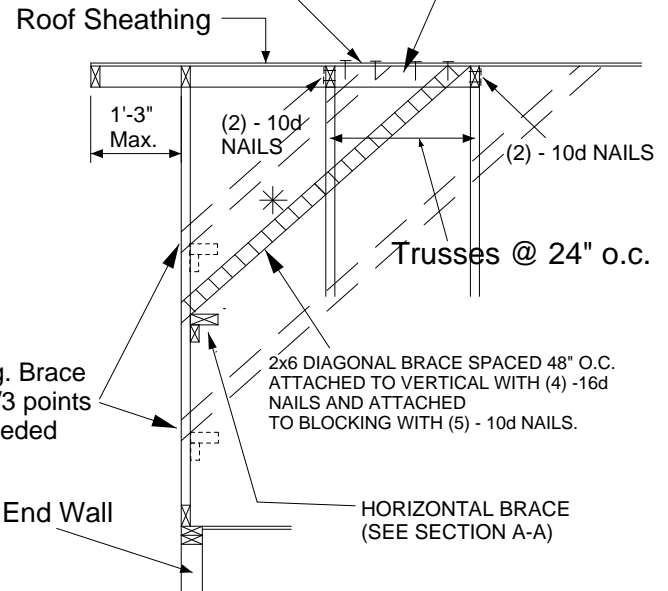
\*\* - L-Bracing Refer to Section B-B

NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
						Maximum Stud Length
2x4 SP No. 3 / Stud	12" O.C.	3-9-13	4-1-1	5-9-6	7-1-3	11-5-7
2x4 SP No. 3 / Stud	16" O.C.	3-5-4	3-6-8	5-0-2	6-10-8	10-3-13
2x4 SP No. 3 / Stud	24" O.C.	2-9-11	2-10-11	4-1-1	5-7-6	8-5-1

\* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 l-braces attached to both edges. Fasten T and l braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2, 2021

MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE D  
ASCE 7-98, ASCE 7-02, ASCE 7-05, 130 MPH  
ASCE 7-10, ASCE 7-16, 160 MPH  
DURATION OF LOAD INCREASE

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.

Design valid for use only with MiTek connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

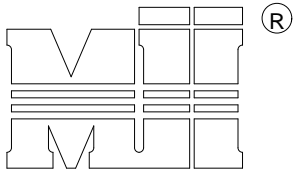
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



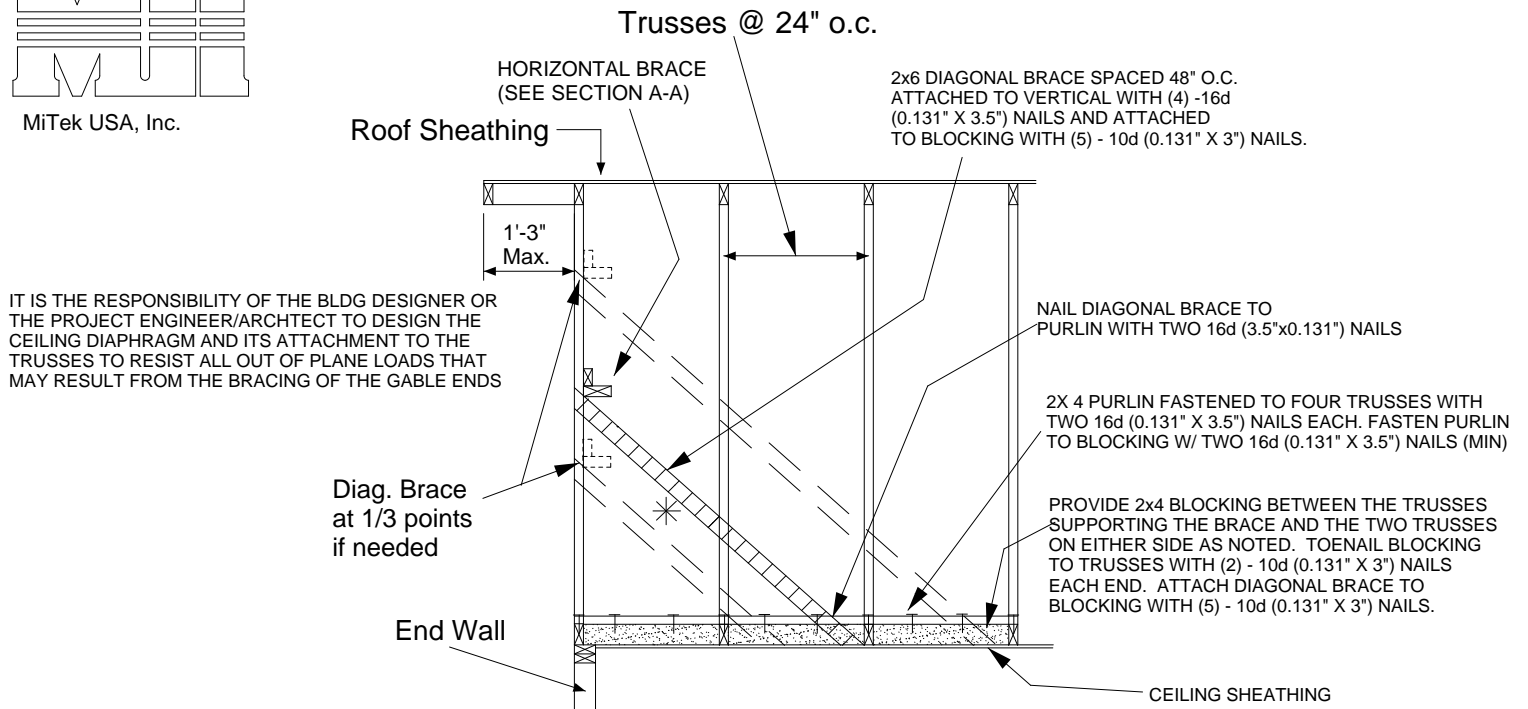
6904 Parke East Blvd.  
Tampa, FL 36610





MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

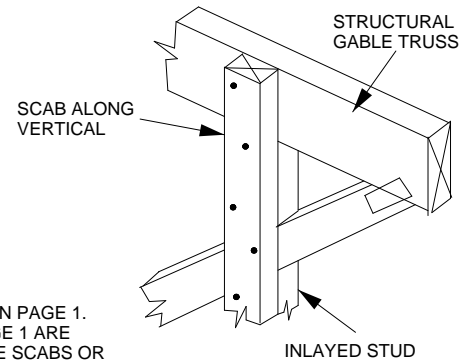
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

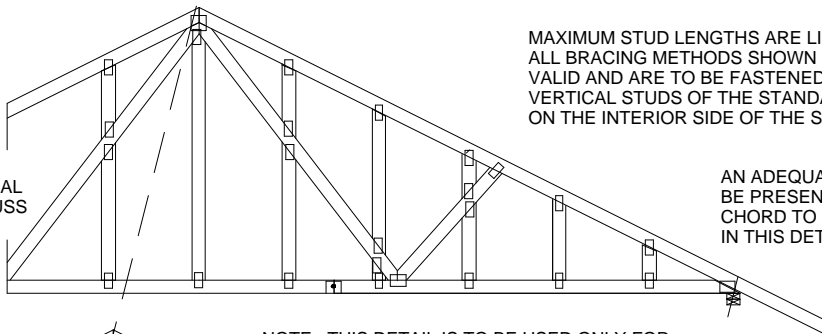
NAILING SCHEDULE:

- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

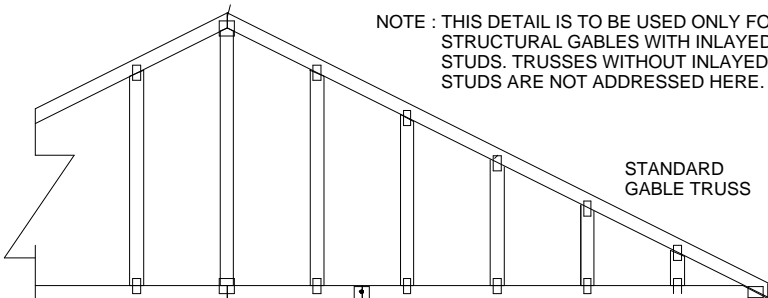
STRUCTURAL GABLE TRUSS



AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS



This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

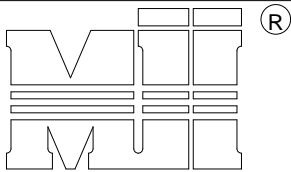
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSIT/P11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

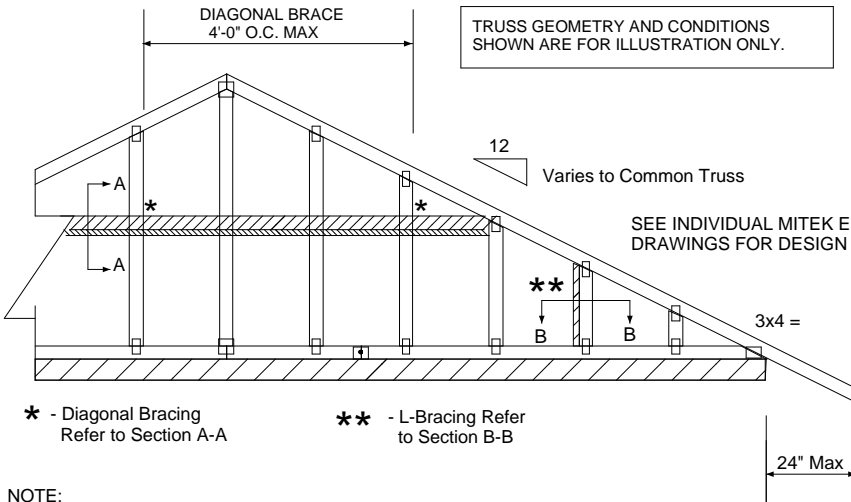
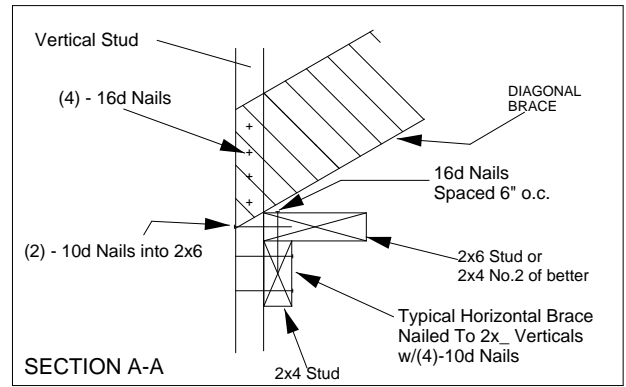
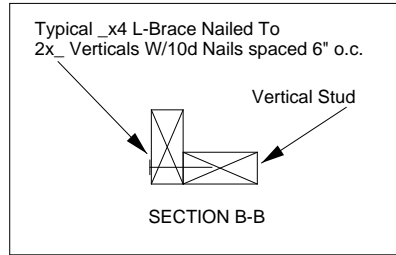


6904 Parke East Blvd.  
Tampa, FL 36610





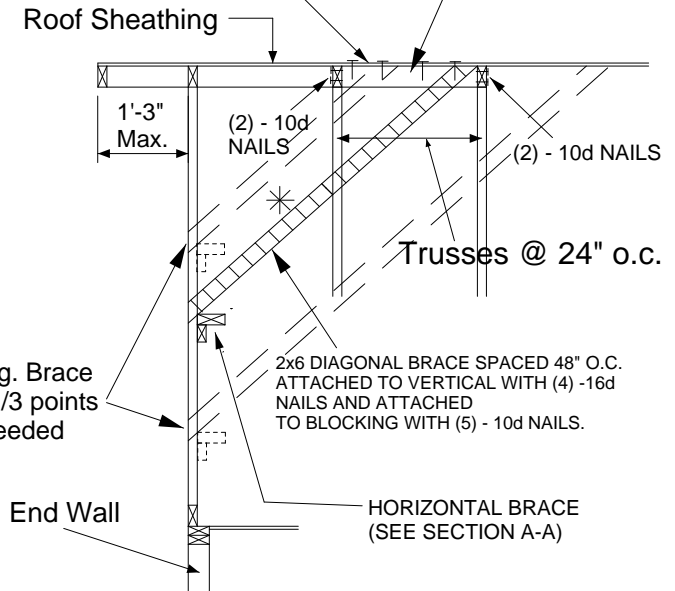
MiTek USA, Inc.



- NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
  2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
  3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
  4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
  5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
  6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
  7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
  8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
  9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
  10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
  11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
			Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	4-0-7	4-5-6	6-3-8	8-0-15	12-1-6
2x4 SP No. 3 / Stud	16" O.C.	3-8-0	3-10-4	5-5-6	7-4-1	11-0-1
2x4 SP No. 3 / Stud	24" O.C.	3-0-10	3-1-12	4-5-6	6-1-5	9-1-15

\* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2, 2021

MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05, 130 MPH  
ASCE 7-10, ASCE 7-16, 160 MPH  
DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MVFRS. rev. 5/19/2020 BEFORE USE.

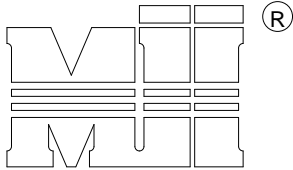
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

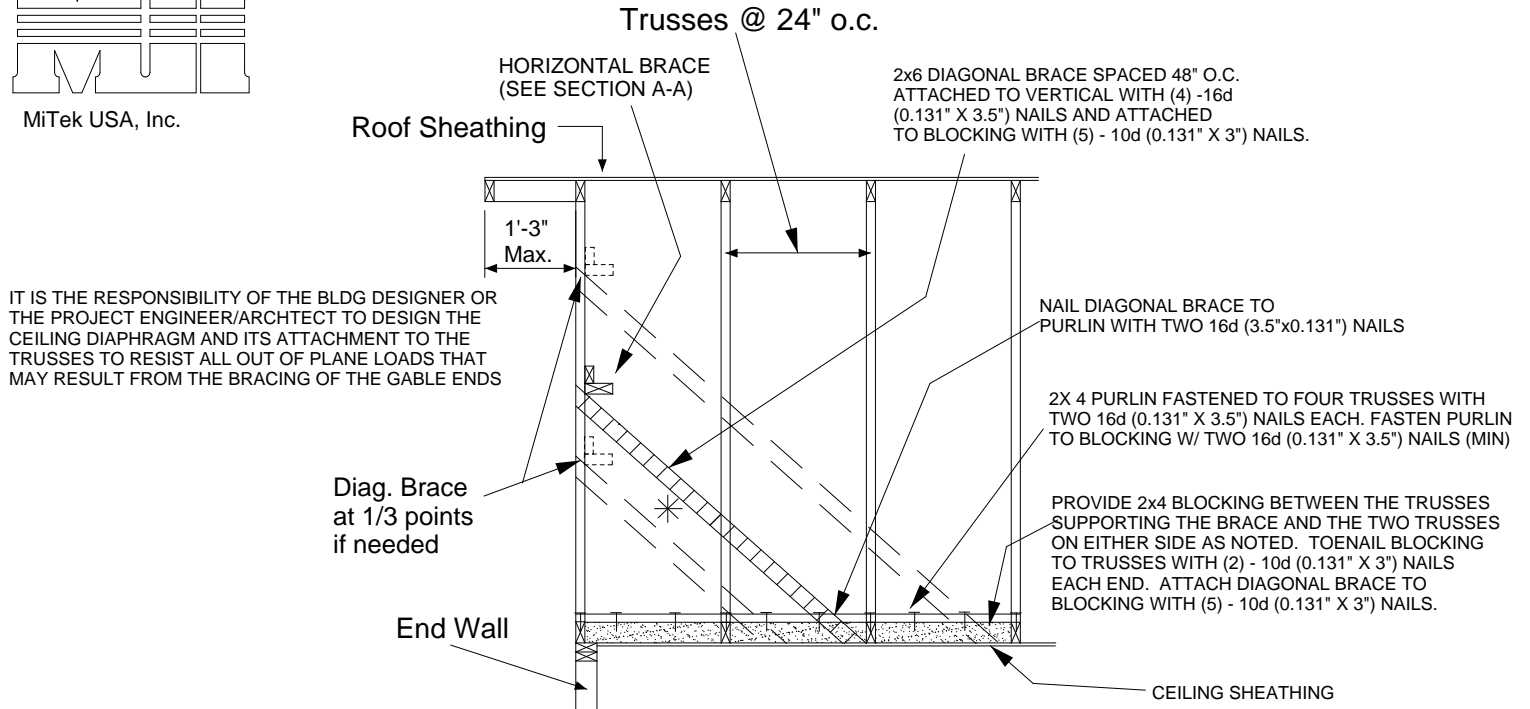


6904 Parke East Blvd.  
Tampa, FL 36610



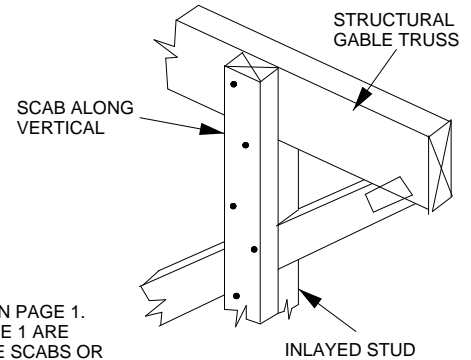
MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD

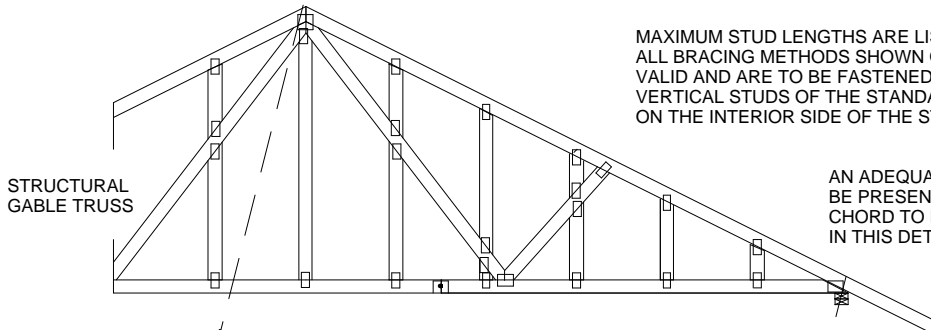


BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

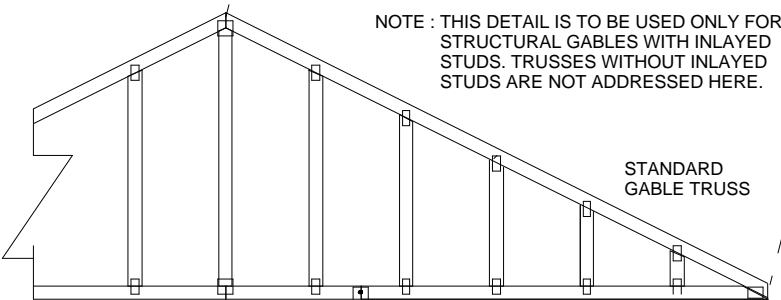
- STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:  
 METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.  
 METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS  
 NAILING SCHEDULE:  
 - FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.  
 - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.



AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.



NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

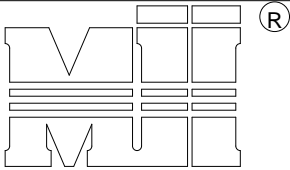
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

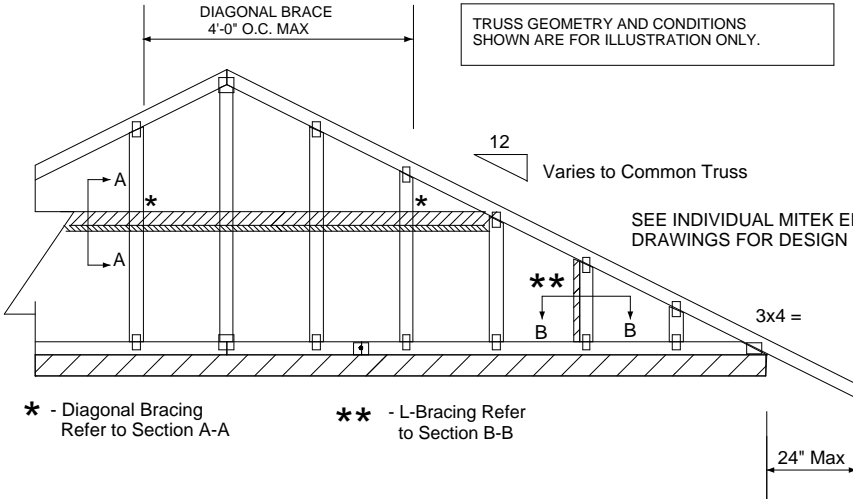
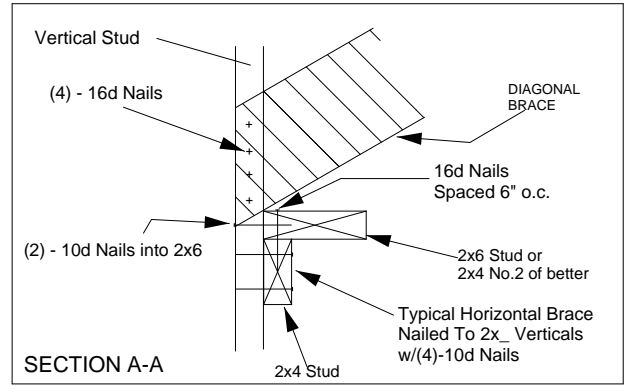
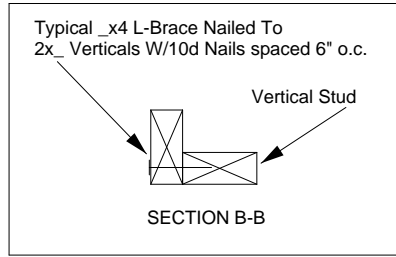
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 36610

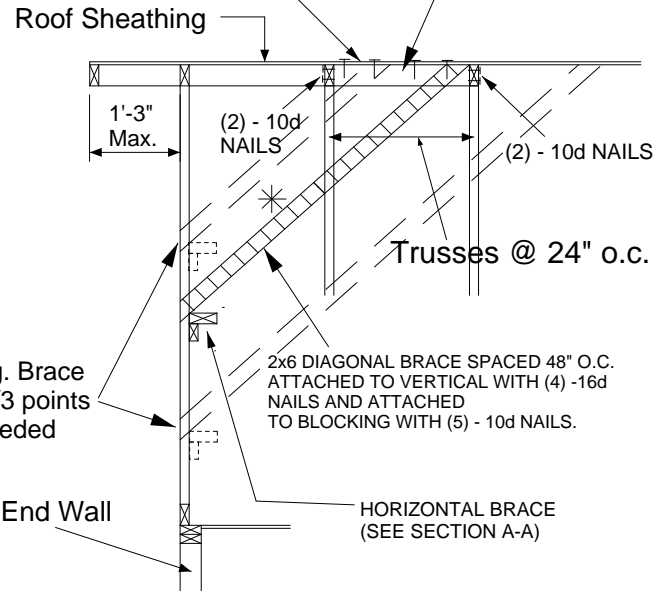


MiTek USA, Inc.



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD DF/SPF BLOCK



- NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
  2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
  3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
  4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
  5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
  6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
  7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
  8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
  9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
  10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 DF/SPF Std/Stud	12" O.C.	3-10-1	3-11-7	5-7-2	7-8-2	11-6-4
2x4 DF/SPF Std/Stud	16" O.C.	3-3-14	3-5-1	4-10-2	6-7-13	9-11-11
2x4 DF/SPF Std/Stud	24" O.C.	2-8-9	2-9-8	3-11-7	5-5-2	8-1-12

\* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2, 2021

MAXIMUM WIND SPEED = 140 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C

ASCE 7-98, ASCE 7-02, ASCE 7-05  
DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

CONNECTION OF BRACINGS IS BASED ON MWPRS 173 rev. 5/19/2020 BEFORE USE.

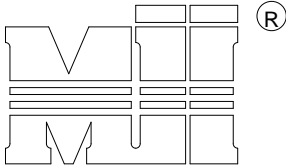
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

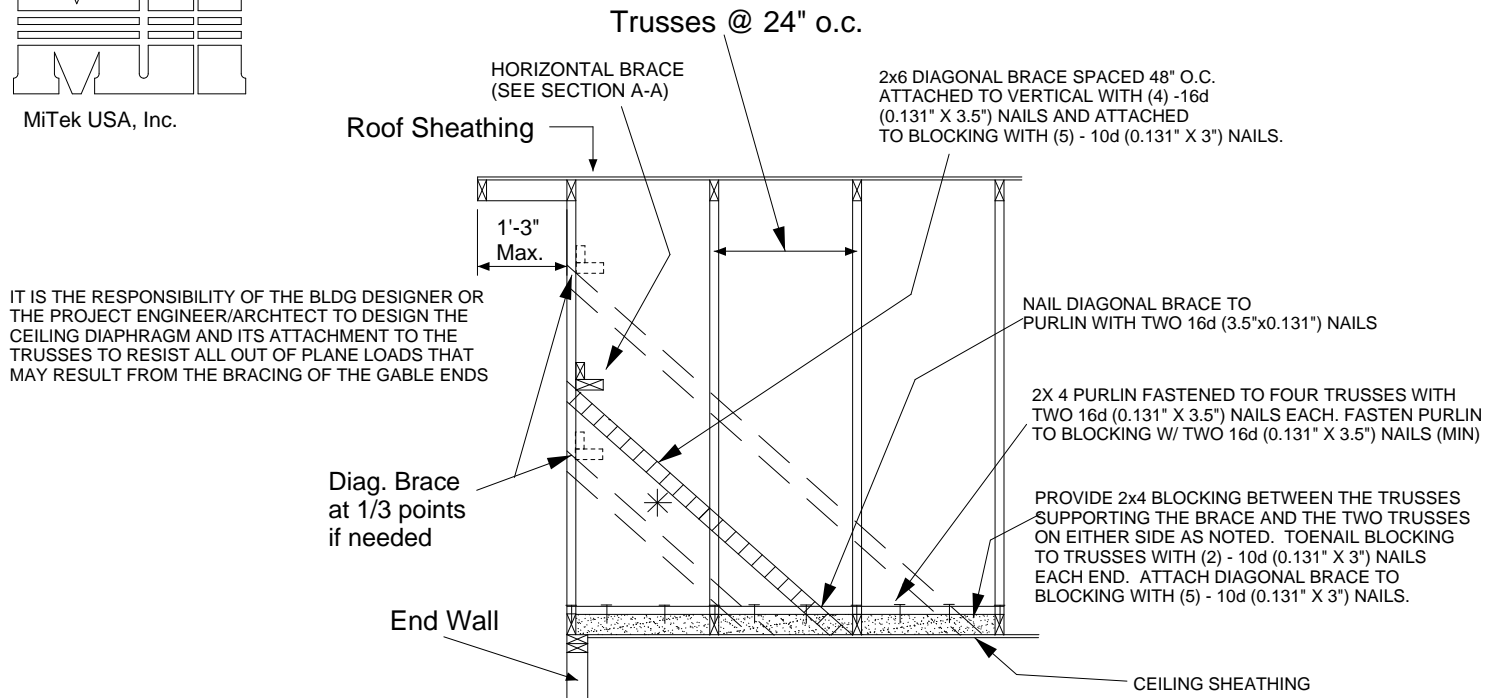


6904 Parke East Blvd.  
Tampa, FL 36610



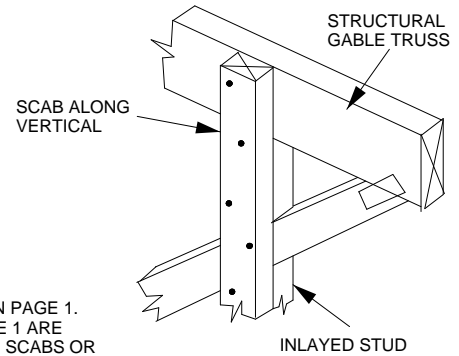
MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD

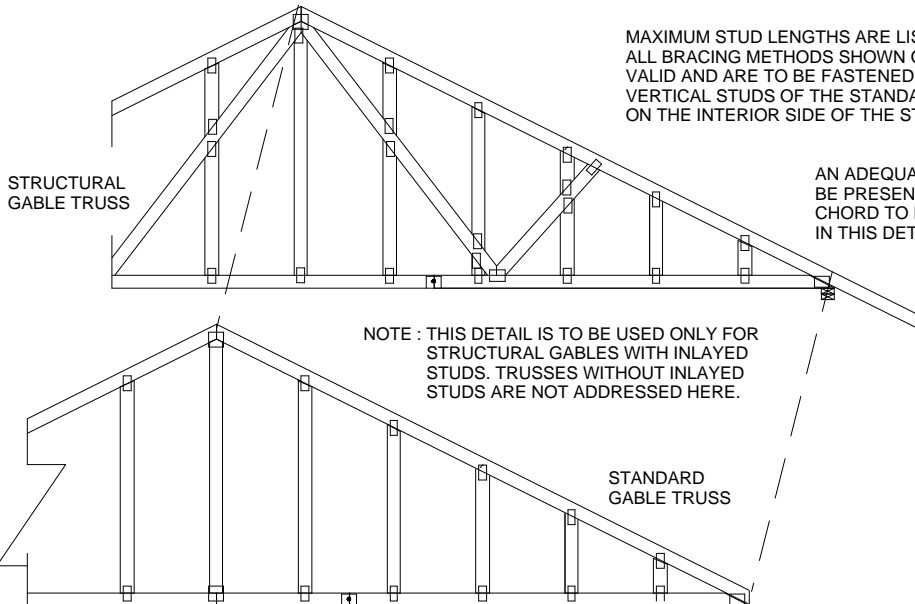


BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

- STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:
- METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.
- METHOD 2 : ATTACH 2X... SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS
- NAILING SCHEDULE:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
  - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.



This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

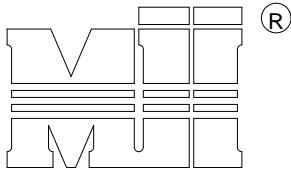
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

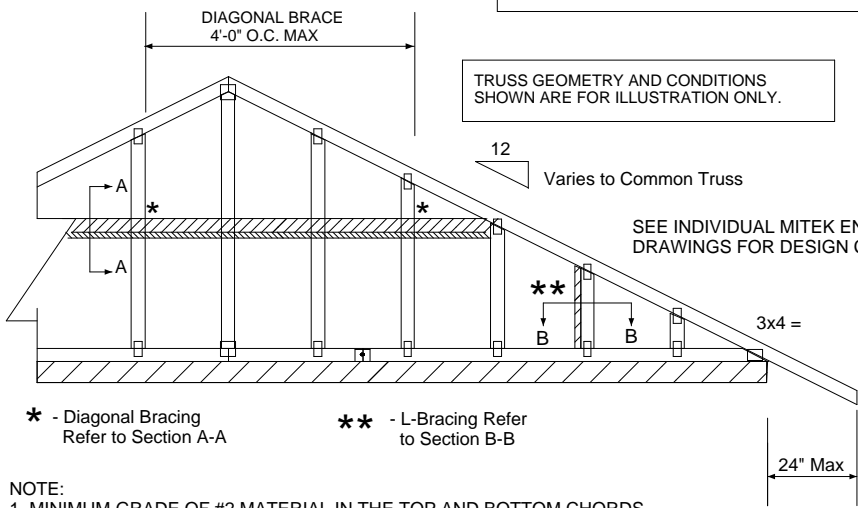
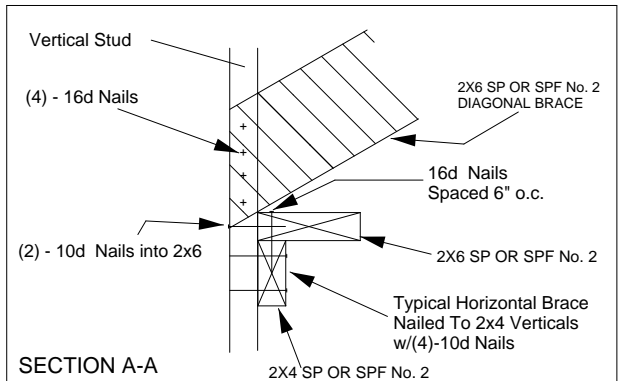
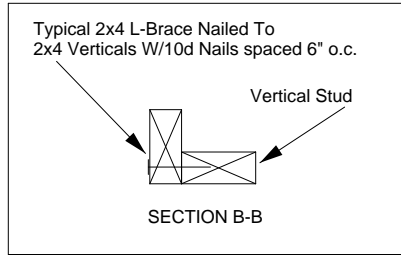


6904 Parke East Blvd.  
Tampa, FL 36610





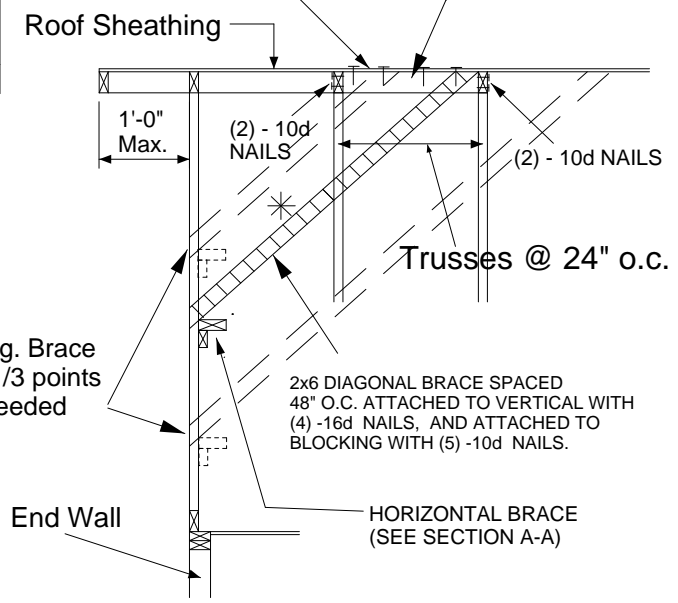
MiTek USA, Inc.



- NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
  2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
  3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
  4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
  5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
  6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
  7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
  8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
  9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
  10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
  11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
					Maximum Stud Length
2x4 SP No. 3 / Stud	12" O.C.	3-9-7	5-8-8	6-11-1	11-4-4
2x4 SP No. 3 / Stud	16" O.C.	3-4-12	4-11-15	6-9-8	10-2-3
2x4 SP No. 3 / Stud	24" O.C.	2-9-4	4-0-7	5-6-8	8-3-13
2x4 SP No. 2	12" O.C.	3-11-13	5-8-8	6-11-1	11-11-7
2x4 SP No. 2	16" O.C.	3-7-7	4-11-5	6-11-1	10-10-5
2x4 SP No. 2	24" O.C.	3-1-15	4-0-7	6-3-14	9-5-14

\* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 l-braces attached to both edges. Fasten T and l braces to narrow edge of diagonal brace with 10d nails 6" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length. T or l braces must be 2x4 SPF No. 2 or SP No. 2.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

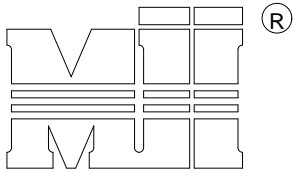
April 2,2021

MAX MEAN ROOF HEIGHT = 30 FEET  
EXPOSURE D  
ASCE 7-10, ASCE 7-16 170 MPH  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.

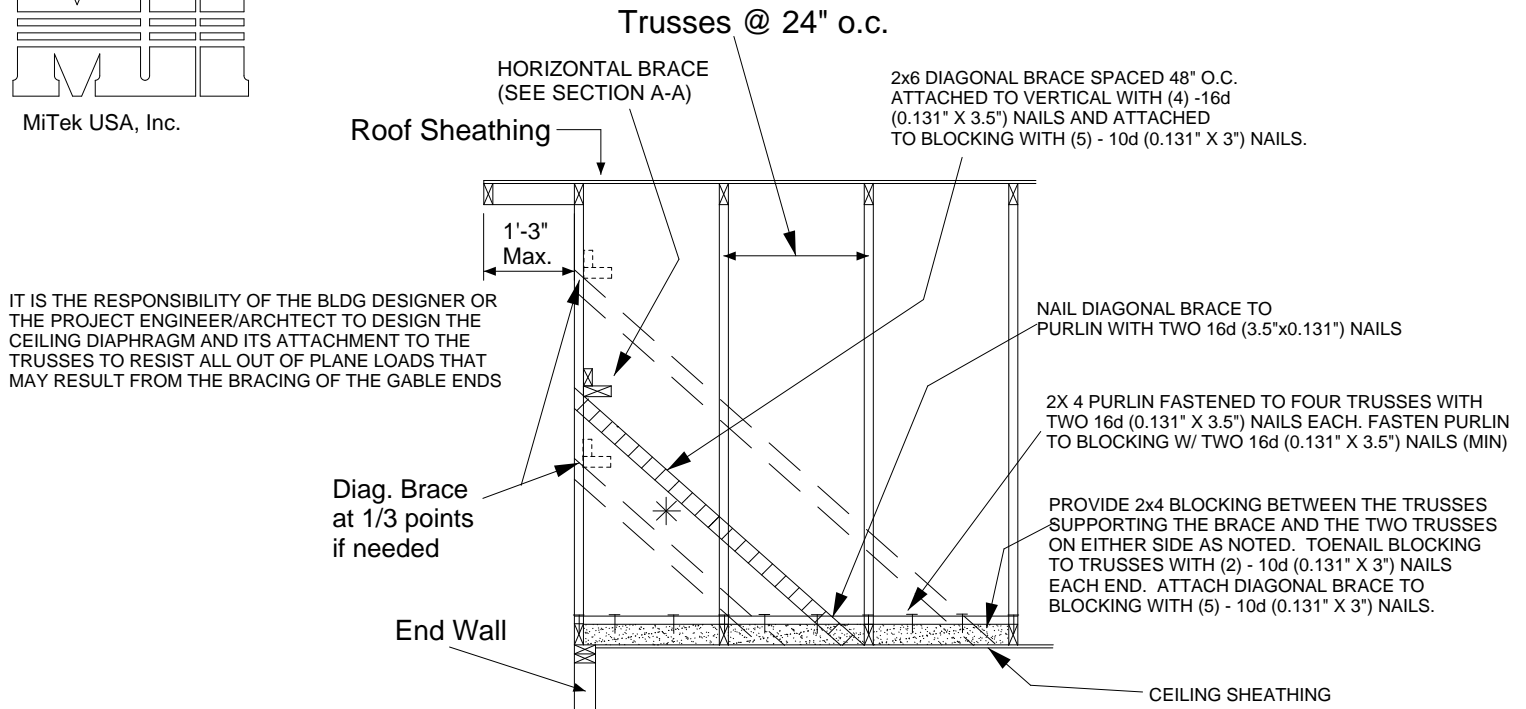
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MII-731REV. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

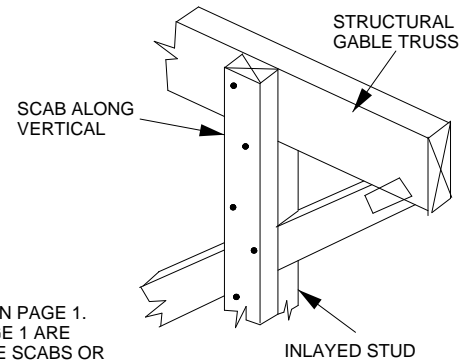
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

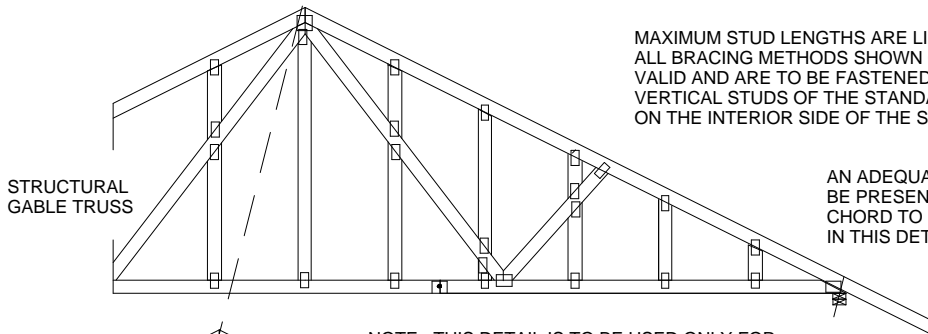
METHOD 2 : ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

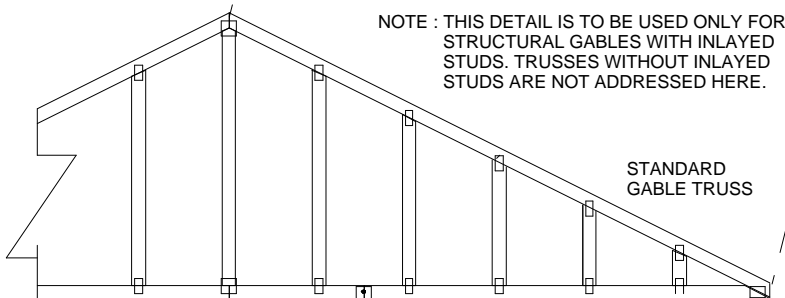
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.



AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.



This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

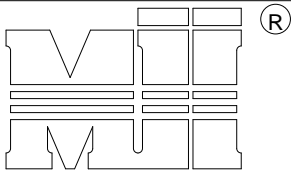
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

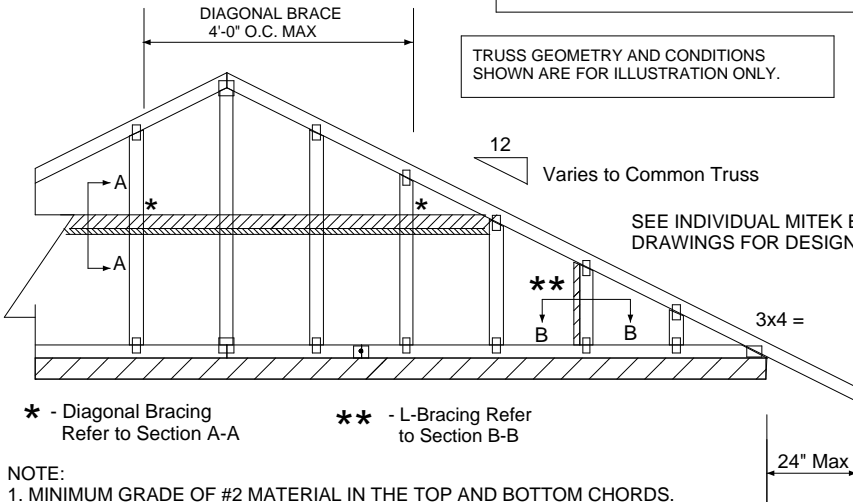
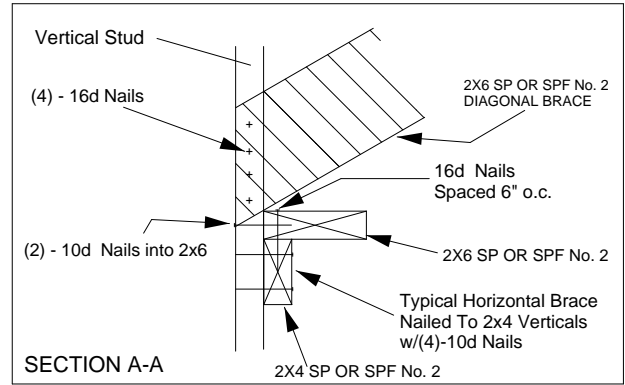
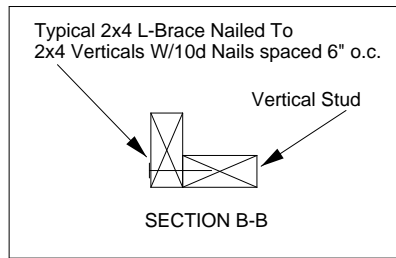
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610



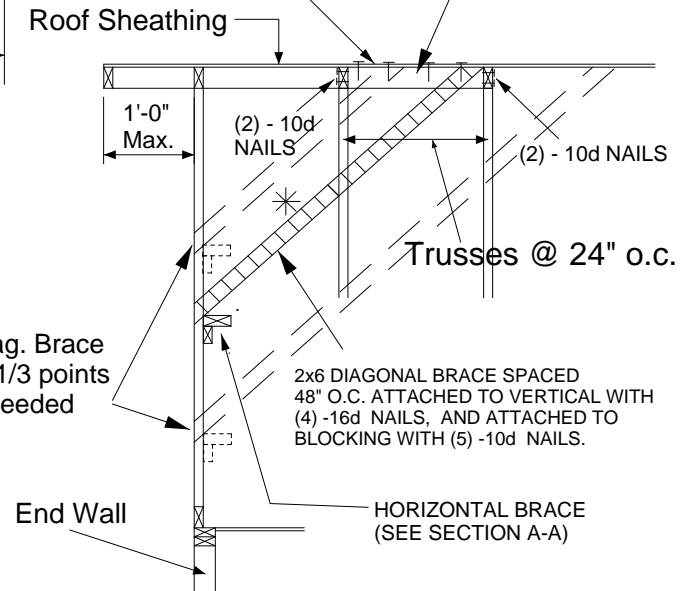
MiTek USA, Inc.



- NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
  2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
  3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
  4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
  5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
  6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
  7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
  8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
  9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
  10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
  11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
					Maximum Stud Length
2x4 SP No. 3 / Stud	12" O.C.	3-7-12	5-4-11	6-2-1	10-11-3
2x4 SP No. 3 / Stud	16" O.C.	3-2-8	4-8-1	6-2-1	9-7-7
2x4 SP No. 3 / Stud	24" O.C.	2-7-7	3-9-12	5-2-13	7-10-4
2x4 SP No. 2	12" O.C.	3-10-0	5-4-11	6-2-1	11-6-1
2x4 SP No. 2	16" O.C.	3-5-13	4-8-1	6-2-1	10-5-7
2x4 SP No. 2	24" O.C.	3-0-8	3-9-12	6-1-1	9-1-9

\* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2, 2021

MAX MEAN ROOF HEIGHT = 30 FEET  
EXPOSURE D

ASCE 7-10, ASCE 7-16 180 MPH  
DURATION OF LOAD INCREASE : 1.60

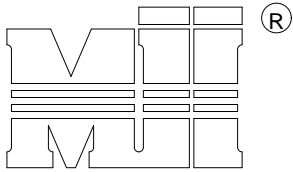
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS

WARNING - Verify design parameters and READ NOTES ON THE PRODUCT BEFORE USE. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



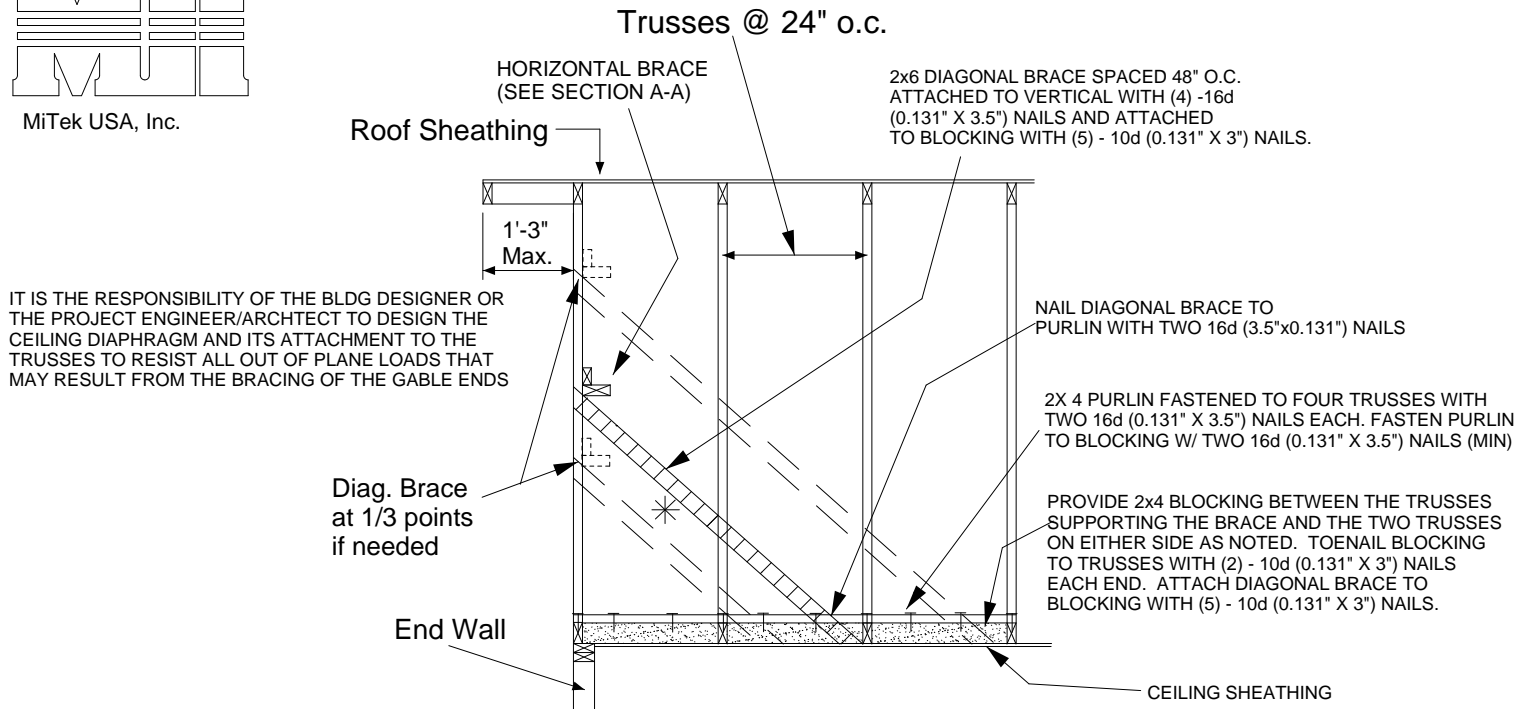
6904 Parke East Blvd.  
Tampa, FL 33610





MiTek USA, Inc.

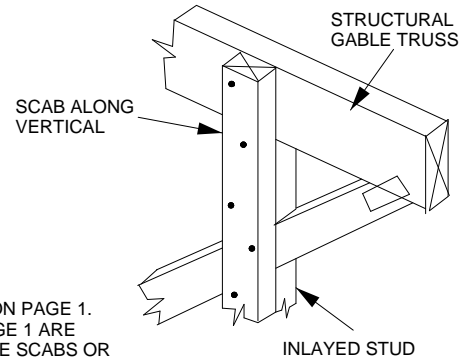
ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:  
 METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.  
 METHOD 2 : ATTACH 2X \_ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:  
 - FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.  
 - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAVED STUDS. TRUSSES WITHOUT INLAVED STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

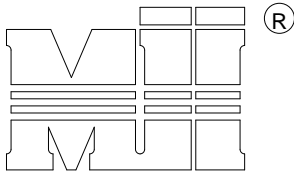
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 36610

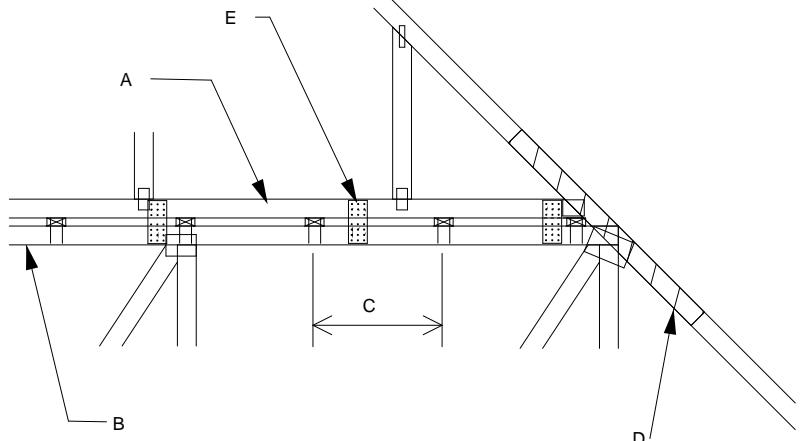


MiTek USA, Inc.

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E  
 MAX MEAN ROOF HEIGHT = 30 FEET  
 MAX TRUSS SPACING = 24" O.C.  
 CATEGORY II BUILDING  
 EXPOSURE B or C  
 ENCLOSED BUILDING  
 LOADING = 5 PSF TCDL  
 ASCE 7-10, ASCE 7-16  
 DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERRING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

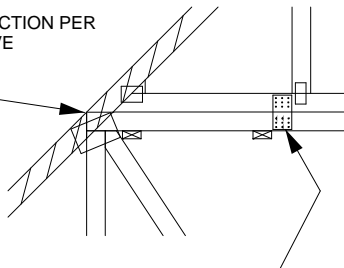
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X \_\_\_ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
  - 1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
  - 2. WIND SPEED OF 116 MPH TO 180 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEEDS BETWEEN 116 AND 180 MPH, ATTACH MITEK NP37 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" NAIL EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



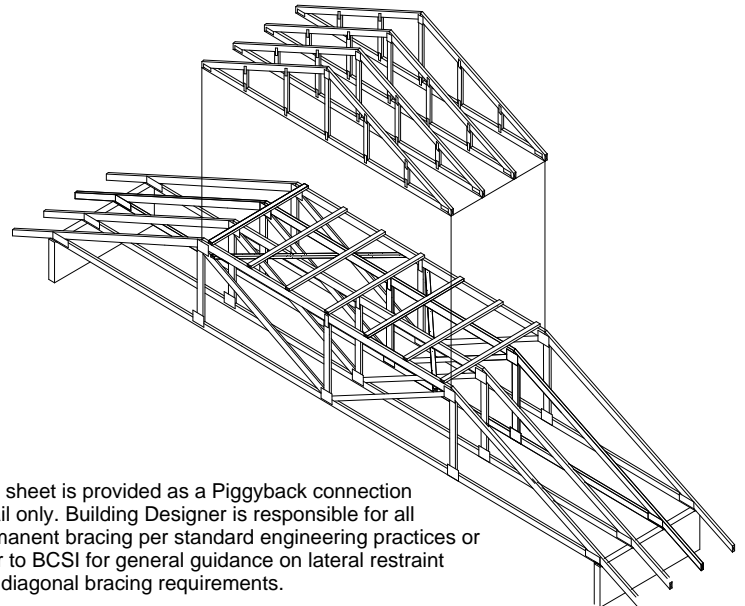
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER NOTE D ABOVE

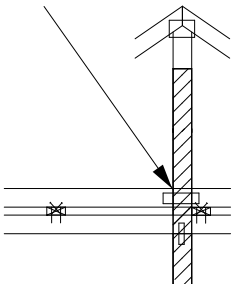


FOR ALL WIND SPEEDS, ATTACH MITEK NP37 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" NAIL EDGE DISTANCE.



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x \_\_\_ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

April 2, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

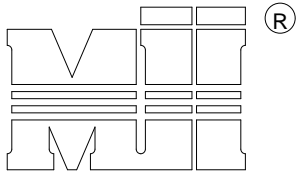
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 36610

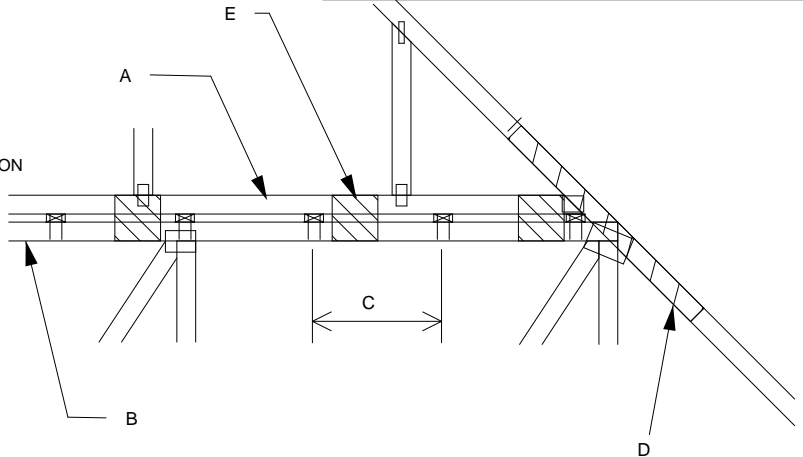


MiTek USA, Inc.

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E  
 MAX MEAN ROOF HEIGHT = 30 FEET  
 MAX TRUSS SPACING = 24" O.C.  
 CATEGORY II BUILDING  
 EXPOSURE B or C  
 ENCLOSED BUILDING  
 LOADING = 5 PSF TC DL MINIMUM  
 ASCE 7-10, ASCE 7-16  
 DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERRING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

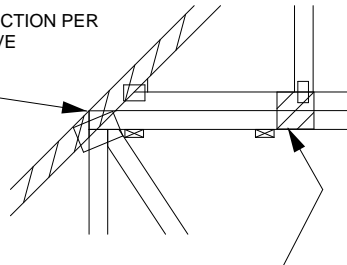
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X \_\_\_ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
  - 1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
  - 2. WIND SPEED OF 116 MPH TO 180 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEED IN THE RANGE 116 MPH - 180 MPH ADD 9' x 9' x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



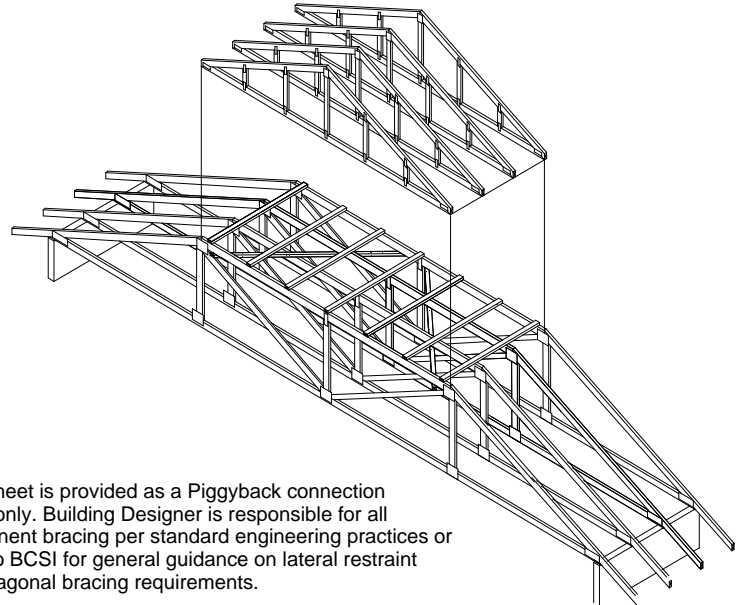
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER NOTE D ABOVE

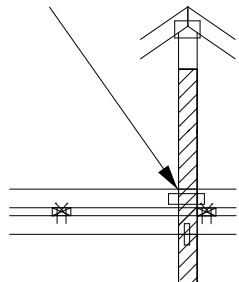


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x \_\_\_ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

April 2, 2021

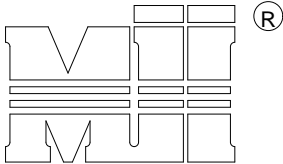
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 33610



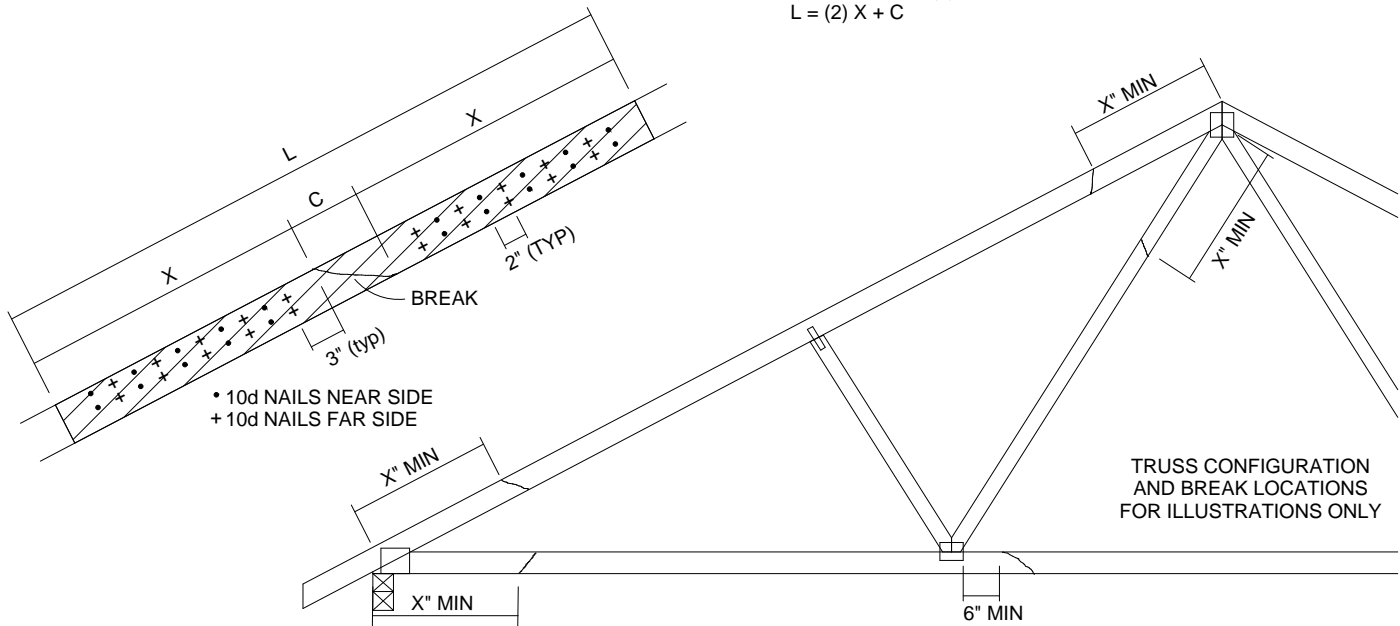
MiTek USA, Inc.

TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	3187
38	57	42"	3169	4754	2900	4350	2451	3677	2511	3767
44	66	48"	3657	5485	3346	5019	2829	4243	2898	4347

\* DIVIDE EQUALLY FRONT AND BACK

ATTACH 2x\_ SCAB OF THE SAME SIZE AND GRADE AS THE BROKEN MEMBER TO EACH FACE OF THE TRUSS (CENTER ON BREAK OR SPLICE) WITH 10d (0.131" X 3") NAILS (TWO ROWS FOR 2x4, THREE ROWS FOR 2x6) SPACED 4" O.C. AS SHOWN. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 0-2-0 O.C. SPACING IN THE MAIN MEMBER. USE A MIN. 0-3-0 MEMBER END DISTANCE.

THE LENGTH OF THE BREAK (C) SHALL NOT EXCEED 12". (C=PLATE LENGTH FOR SPLICE REPAIRS)  
THE MINIMUM OVERALL SCAB LENGTH REQUIRED (L) IS CALCULATED AS FOLLOWS:  
 $L = (2) X + C$



THE LOCATION OF THE BREAK MUST BE GREATER THAN OR EQUAL TO THE REQUIRED X DIMENSION FROM ANY PERIMETER BREAK OR HEEL JOINT AND A MINIMUM OF 6" FROM ANY INTERIOR JOINT (SEE SKETCH ABOVE)

DO NOT USE REPAIR FOR JOINT SPLICES

NOTES:

1. THIS REPAIR DETAIL IS TO BE USED ONLY FOR THE APPLICATION SHOWN. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
4. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x\_ ORIENTATION ONLY.
6. THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

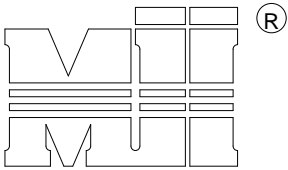
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610



MiTek USA, Inc.

NOTES:

- TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN).
- THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
- ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2018 (lb/nail)

	DIAM.	SP	DF	HF	SPF	SPF-S
3.5" LONG	.131	88.0	80.6	69.9	68.4	59.7
	.135	93.5	85.6	74.2	72.6	63.4
	.162	108.8	99.6	86.4	84.5	73.8
3.25" LONG	.128	74.2	67.9	58.9	57.6	50.3
	.131	75.9	69.5	60.3	59.0	51.1
	.148	81.4	74.5	64.6	63.2	52.5

VALUES SHOWN ARE CAPACITY PER TOE-NAIL. APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

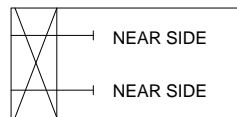
EXAMPLE:

(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

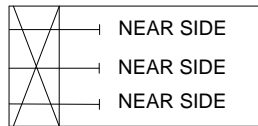
For load duration increase of 1.15:

3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

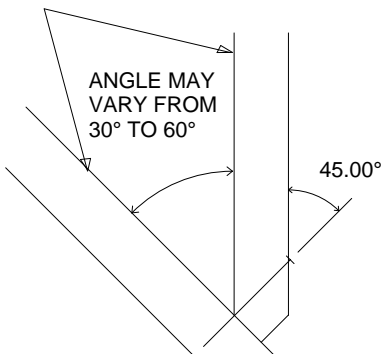
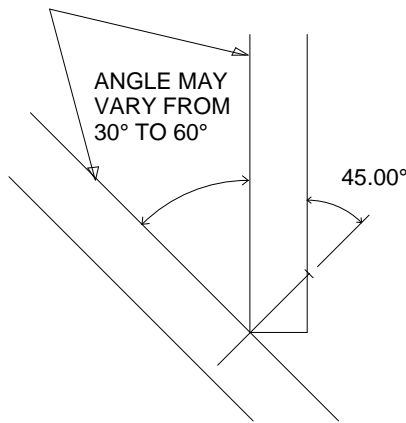
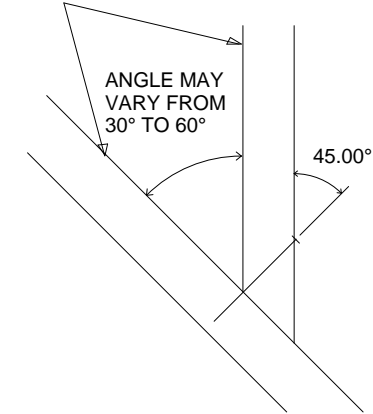
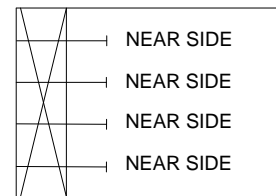
SIDE VIEW  
(2x3)  
2 NAILS



SIDE VIEW  
(2x4)  
3 NAILS



SIDE VIEW  
(2x6)  
4 NAILS



This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

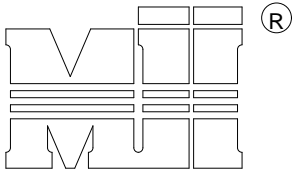
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610

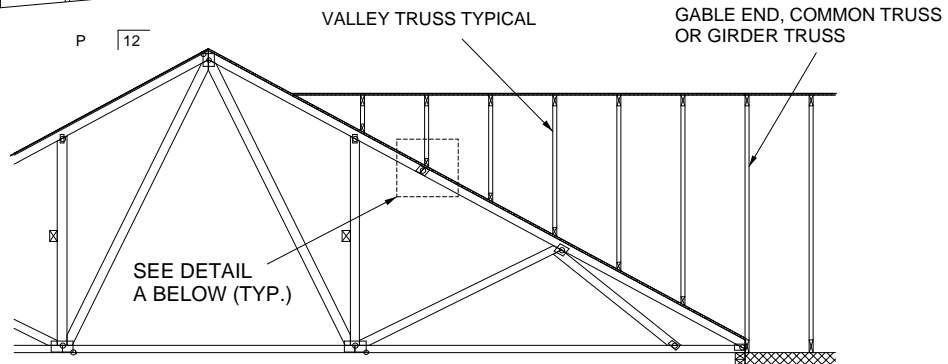
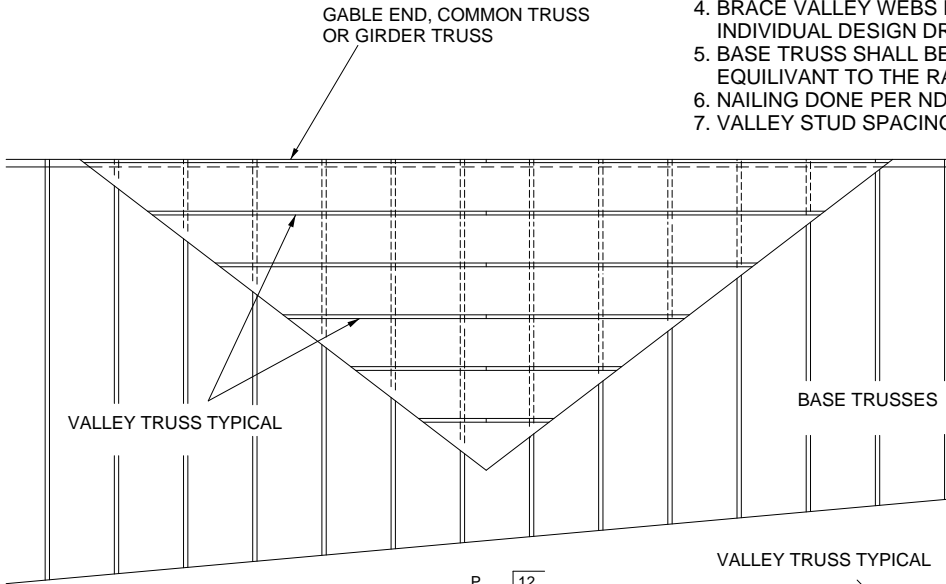




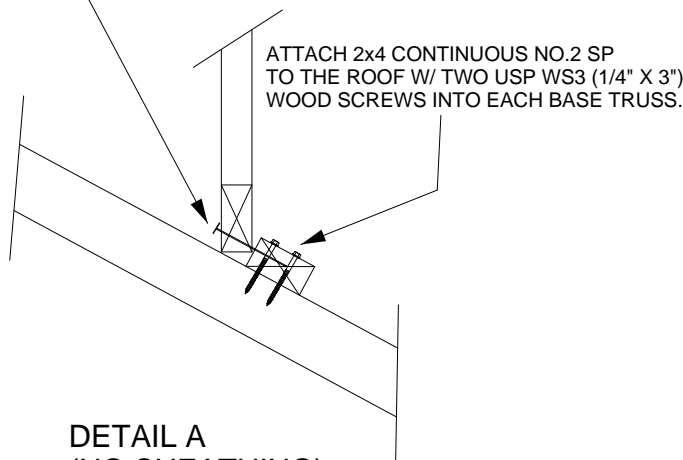
MiTek USA, Inc.

GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT  
DO NOT USE DRYWALL OR DECKING TYPE SCREW
3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
5. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
6. NAILING DONE PER NDS - 01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



SECURE VALLEY TRUSS  
W/ ONE ROW OF 10d  
NAILS 6" O.C.



DETAIL A  
(NO SHEATHING)  
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10, ASCE 7-16 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 6 PSF  
ON THE TRUSSES

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

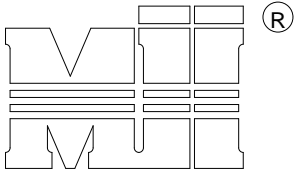
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



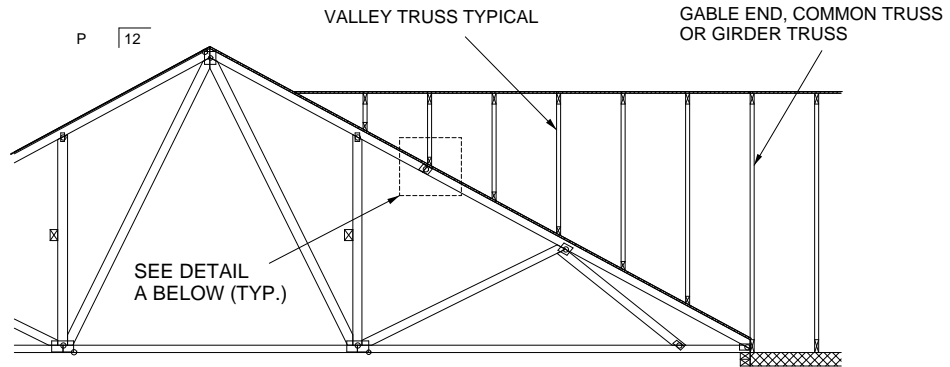
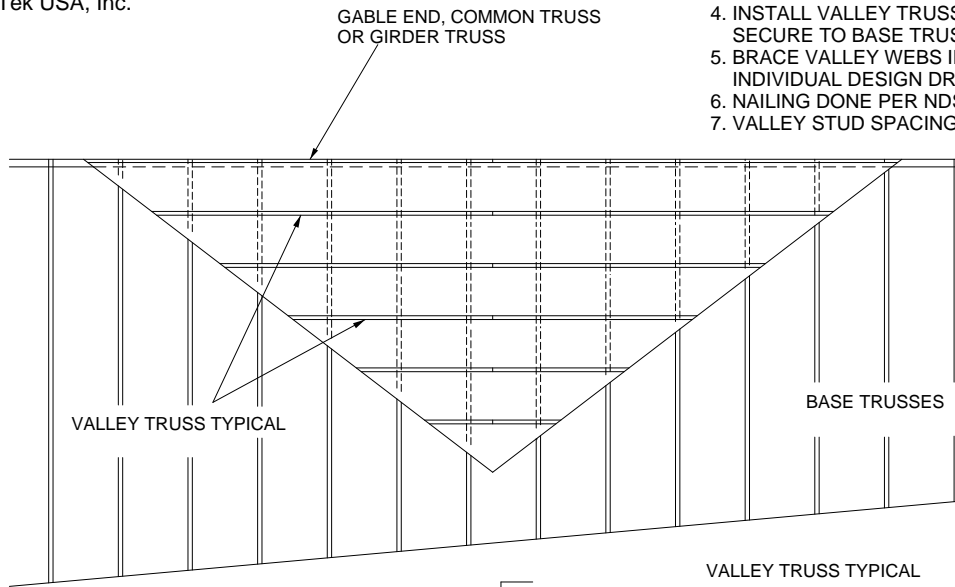
6904 Parke East Blvd.  
Tampa, FL 33610



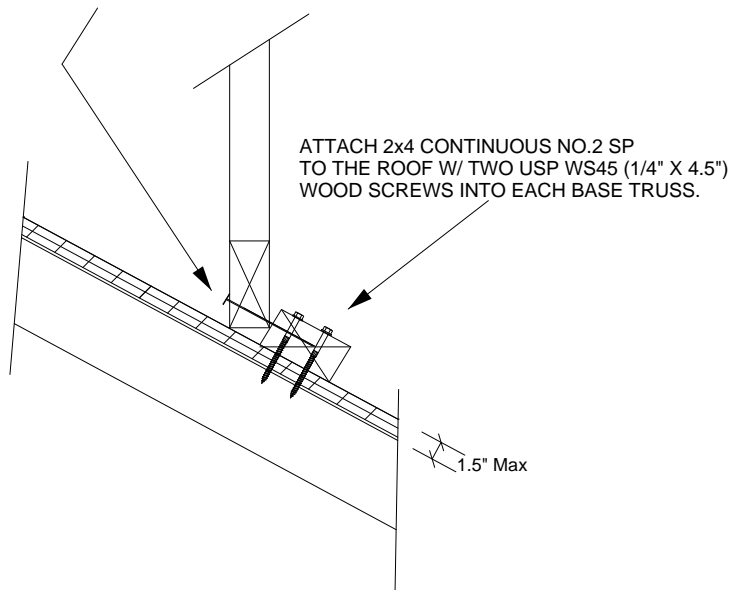
MiTek USA, Inc.

GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 4.5" WS45 USP OR EQUIVANT
3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
4. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A
5. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
6. NAILING DONE PER NDS-01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



SECURE VALLEY TRUSS  
W/ ONE ROW OF 10d  
NAILS 6" O.C.



WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
 WIND DESIGN PER ASCE 7-10, ASCE 7-16 160 MPH  
 MAX MEAN ROOF HEIGHT = 30 FEET  
 ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
 CATEGORY II BUILDING  
 EXPOSURE C  
 WIND DURATION OF LOAD INCREASE : 1.60  
 MAX TOP CHORD TOTAL LOAD = 50 PSF  
 MAX SPACING = 24" O.C. (BASE AND VALLEY)  
 MINIMUM REDUCED DEAD LOAD OF 6 PSF  
 ON THE TRUSSES

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

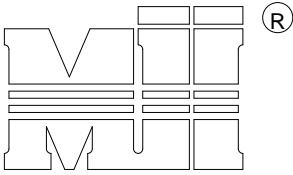
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 36610

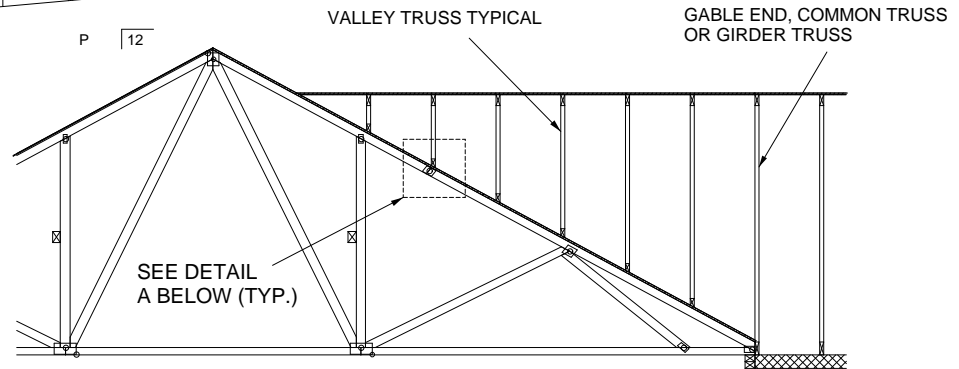
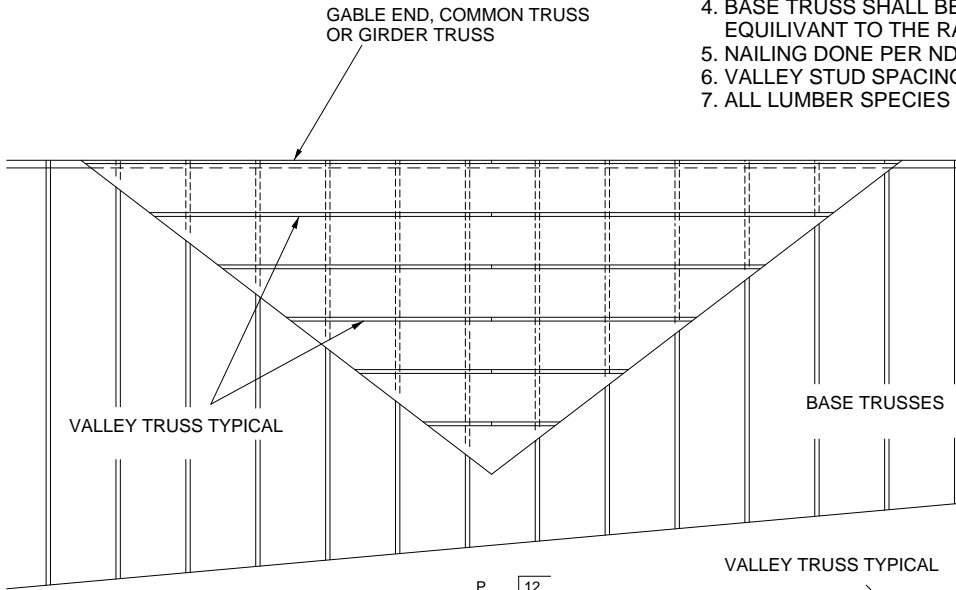




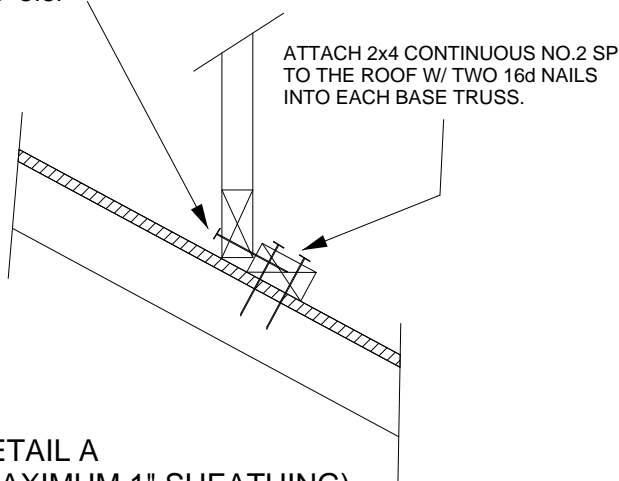
MiTek USA, Inc.

**GENERAL SPECIFICATIONS**

1. NAIL SIZE 16d (0.131" X 3.5")
2. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVARIANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
5. NAILING DONE PER NDS - 01
6. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.
7. ALL LUMBER SPECIES TO BE SP.



SECURE VALLEY TRUSS  
W/ ONE ROW OF 16d  
NAILS 6" O.C.



ATTACH 2x4 CONTINUOUS NO.2 SP  
TO THE ROOF W/ TWO 16d NAILS  
INTO EACH BASE TRUSS.

**DETAIL A**  
**(MAXIMUM 1" SHEATHING)**  
**N.T.S.**

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH  
WIND DESIGN PER ASCE 7-10, ASCE 7-16 150 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12  
CATEGORY II BUILDING  
EXPOSURE C OR B  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 60 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF  
ON THE TRUSSES

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

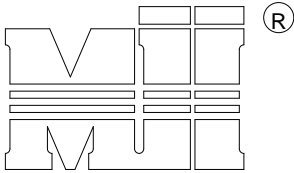
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



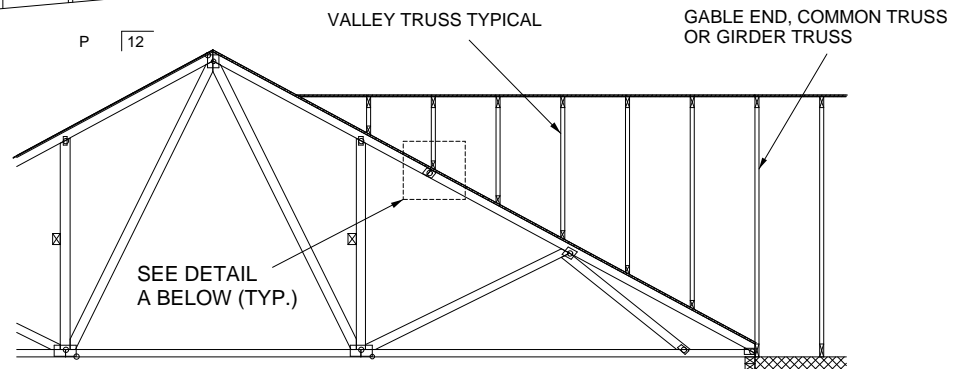
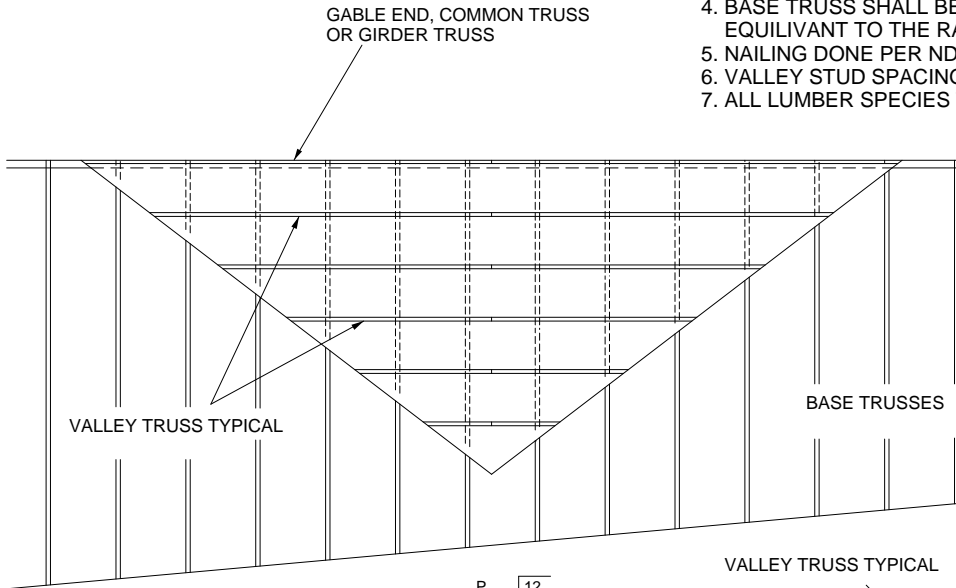
6904 Parke East Blvd.  
Tampa, FL 36610



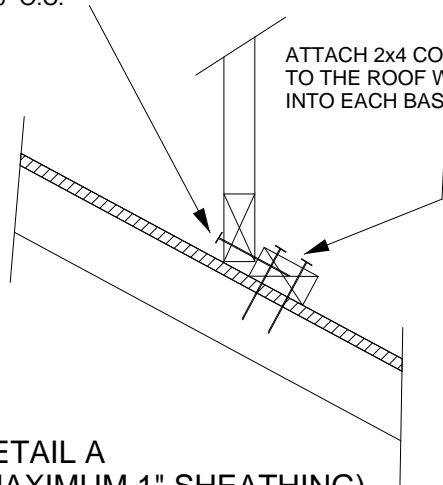
MiTek USA, Inc.

**GENERAL SPECIFICATIONS**

1. NAIL SIZE 16d (0.131" X 3.5")
2. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVARIANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
5. NAILING DONE PER NDS - 01
6. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.
7. ALL LUMBER SPECIES TO BE SP.



SECURE VALLEY TRUSS  
W/ ONE ROW OF 16d  
NAILS 6" O.C.



ATTACH 2x4 CONTINUOUS NO.2 SP  
TO THE ROOF W/ TWO 16d NAILS  
INTO EACH BASE TRUSS.

**DETAIL A**  
**(MAXIMUM 1" SHEATHING)**  
**N.T.S.**

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH  
WIND DESIGN PER ASCE 7-10, ASCE 7-16 150 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12  
CATEGORY II BUILDING  
EXPOSURE C OR B  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 60 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF  
ON THE TRUSSES

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

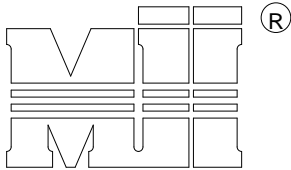
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

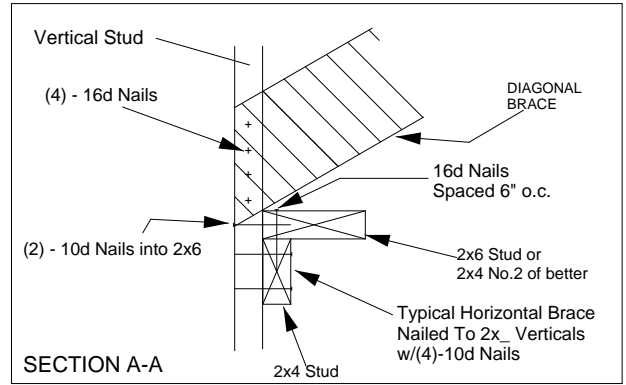
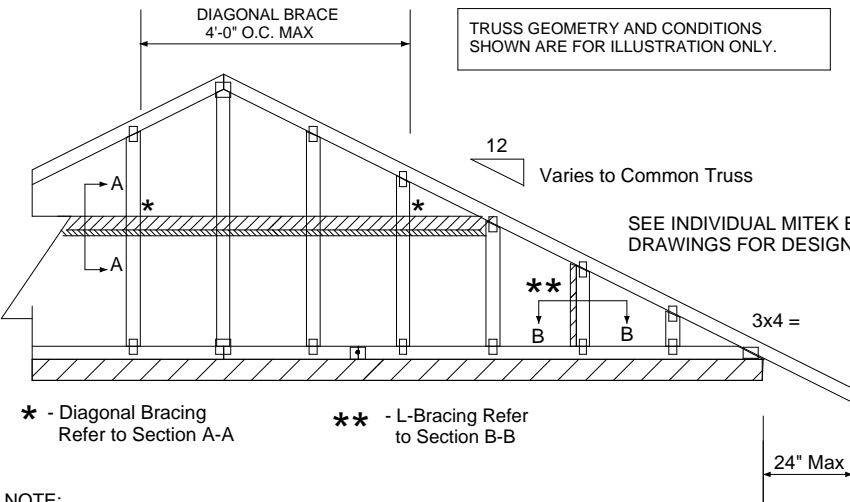
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 33610

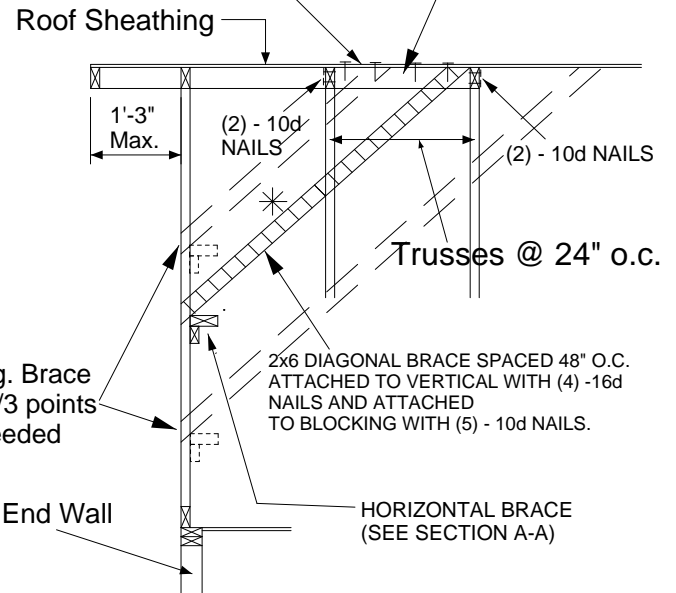


MiTek USA, Inc.



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SP BLOCK



- NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
  2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
  3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
  4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 2x4 No 3/STUD SP OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
  5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
  6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
  7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
  8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
  9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
  10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No 3/Stud	12" O.C.	3-11-3	6-8-0	7-2-14	11-9-10
2x4 SP No 3/Stud	16" O.C.	3-6-14	5-9-5	7-1-13	10-8-11
2x4 SP No 3/Stud	24" O.C.	3-1-8	4-8-9	6-2-15	9-4-7

\* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2, 2021

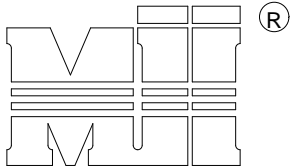
MAXIMUM WIND SPEED = 146 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C

ASCE 7-98, ASCE 7-02, ASCE 7-05  
DURATION OF LOAD INCREASE = 1.60 READ CONNECTION OF BRACINGS IS BASED ON MWFRS 173 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

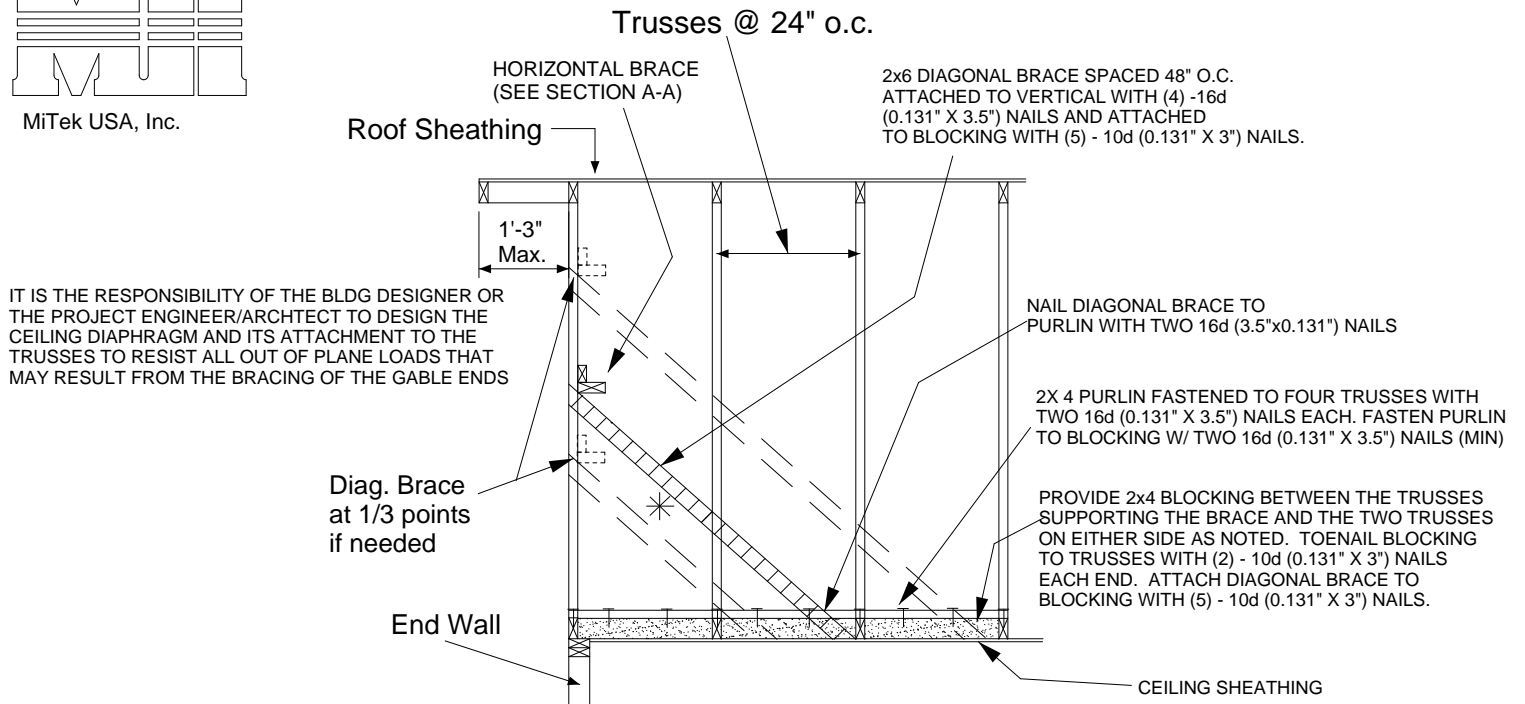


6904 Parke East Blvd.  
Tampa, FL 36610



MiTek USA, Inc.

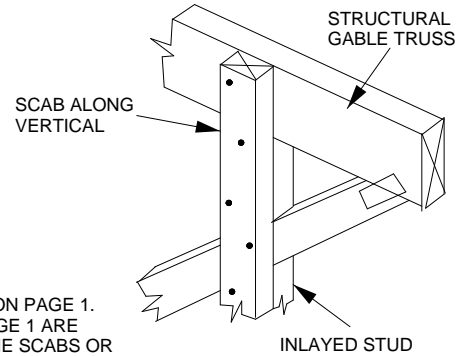
ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR THE PROJECT ENGINEER/ARCHTCT TO DESIGN THE CEILING DIAPHRAGM AND ITS ATTACHMENT TO THE TRUSSES TO RESIST ALL OUT OF PLANE LOADS THAT MAY RESULT FROM THE BRACING OF THE GABLE ENDS

BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

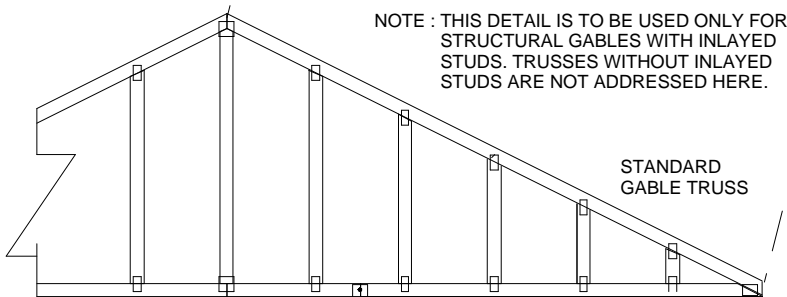
- STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:
- METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.
  - METHOD 2 : ATTACH 2X \_ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS
- NAILING SCHEDULE:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
  - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS

AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.



This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

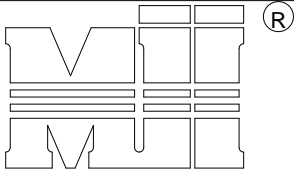
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610



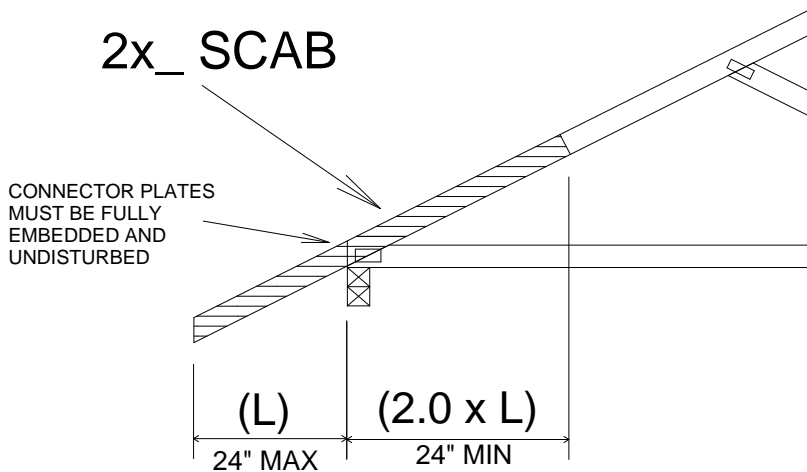
MiTek USA, Inc.

TRUSS CRITERIA:

- LOADING: 40-10-0-10
- DURATION FACTOR: 1.15
- SPACING: 24" O.C.
- TOP CHORD: 2x4 OR 2x6
- PITCH: 4/12 - 12/12
- HEEL HEIGHT: STANDARD HEEL UP TO 12" ENERGY HEEL
- END BEARING CONDITION

NOTES:

1. ATTACH 2x\_ SCAB (MINIMUM NO.2 GRADE SPF, HF, SP, DF) TO ONE FACE OF TRUSS WITH TWO ROWS OF 10d (0.131" X 3") SPACED 6" O.C.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.



IMPORTANT

This detail to be used only with trusses (spans less than 40') spaced 24" o.c. maximum and having pitches between 4/12 and 12/12 and total top chord loads not exceeding 50 psf. Trusses not fitting these criteria should be examined individually.

REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

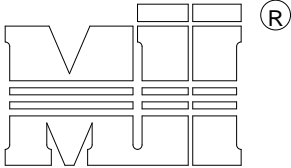
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 33610



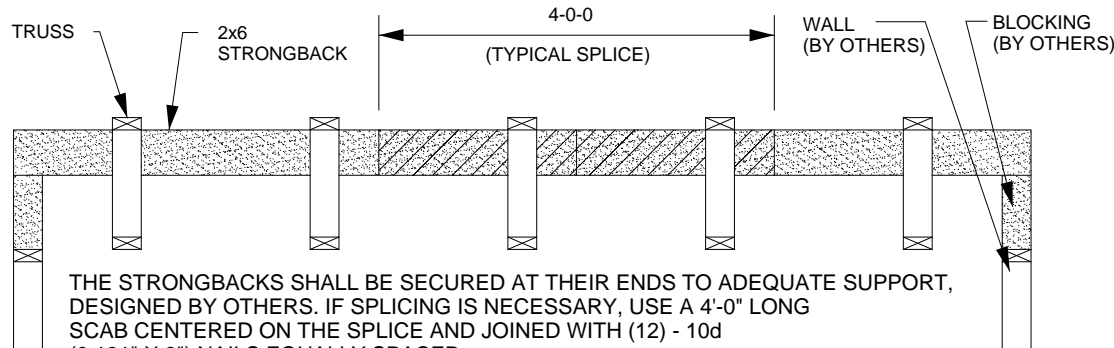
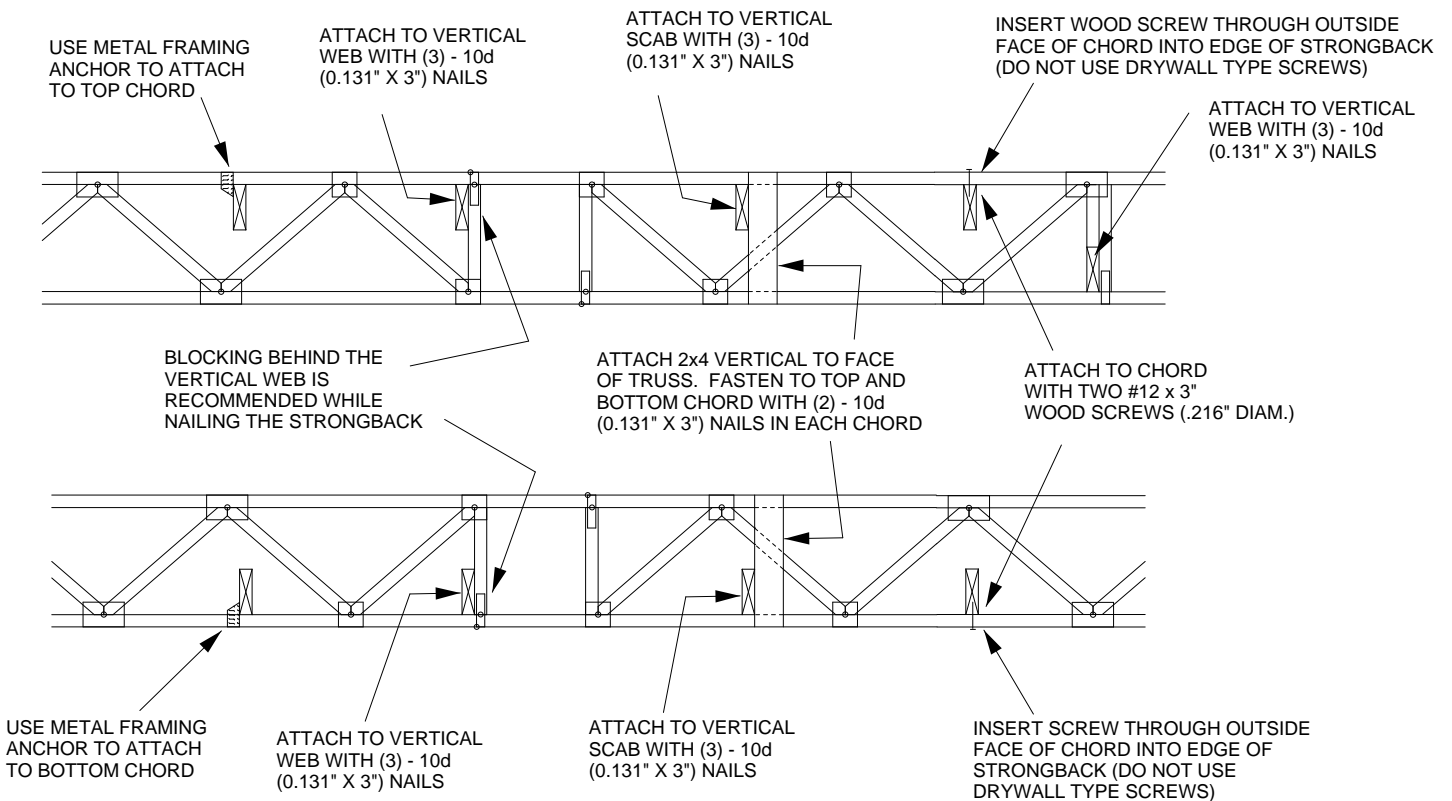


MiTek USA, Inc.

**TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.**

**NOTE 1:** 2X6 STRONGBACK ORIENTED VERTICALLY MAY BE POSITIONED DIRECTLY UNDER THE TOP CHORD OR DIRECTLY ABOVE THE BOTTOM CHORD. SECURELY FASTENED TO THE TRUSS USING ANY OF THE METHODS ILLUSTRATED BELOW.

**NOTE 2:** STRONGBACK BRACING ALSO SATISFIES THE LATERAL BRACING REQUIREMENTS FOR THE BOTTOM CHORD OF THE TRUSS WHEN IT IS PLACED ON TOP OF THE BOTTOM CHORD, IS CONTINUOUS FROM END TO END, CONNECTED WITH A METHOD OTHER THAN METAL FRAMING ANCHOR, AND PROPERLY CONNECTED, BY OTHERS, AT THE ENDS.



THE STRONGBACKS SHALL BE SECURED AT THEIR ENDS TO ADEQUATE SUPPORT, DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d (0.131" X 3") NAILS EQUALLY SPACED.

ALTERNATE METHOD OF SPLICING:  
OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d (0.131" X 3") NAILS STAGGERED AND EQUALLY SPACED.  
(TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

April 2,2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

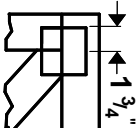


6904 Parke East Blvd.  
Tampa, FL 36610

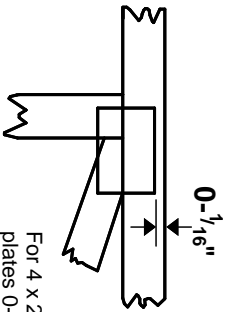


# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

\* Plate location details available in **MITek 20/20 software or upon request.**

## PLATE SIZE

4 X 4

The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

## BEARING



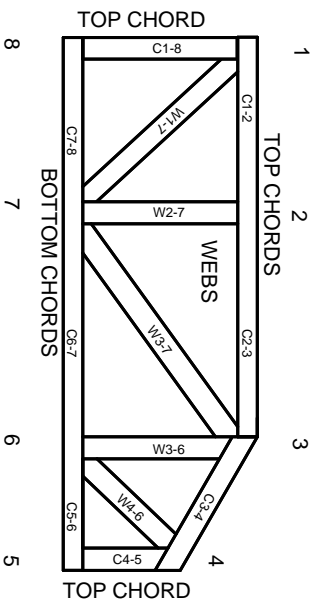
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



**JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.**

**CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.**

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MITek® All Rights Reserved



# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T or I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.



MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



Lumber design values are in accordance with ANSI/TPI 1 section 6.3  
These truss designs rely on lumber values established by others.

RE: 2145086 - REED CONST. - MCDANIEL RES.

MiTek USA, Inc.  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

**Site Information:**

Customer Info: Don Reed Const. Project Name: McDaniel Res. Model: House  
Lot/Block: N/A Subdivision: N/A  
Address: 336 SW Meadow Wood Glen, N/A  
City: Columbai Cty State: FL

**Name Address and License # of Structural Engineer of Record, If there is one, for the building.**

Name: License #:  
Address:  
City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.5  
Wind Code: ASCE 7-16 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: 55.0 psf

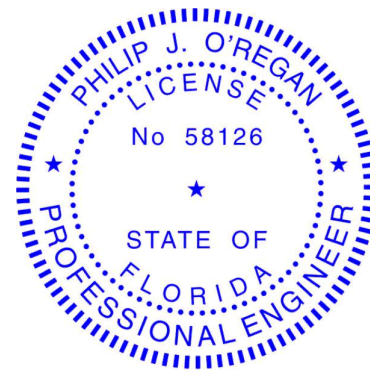
This package includes 33 individual, Truss Design Drawings and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T29572619	F01	1/12/23	15	T29572633	T03G	1/12/23
2	T29572620	F02	1/12/23	16	T29572634	T04	1/12/23
3	T29572621	F03	1/12/23	17	T29572635	T05	1/12/23
4	T29572622	F04	1/12/23	18	T29572636	T08	1/12/23
5	T29572623	F05	1/12/23	19	T29572637	T08A	1/12/23
6	T29572624	F06	1/12/23	20	T29572638	T09	1/12/23
7	T29572625	KW3	1/12/23	21	T29572639	T09G	1/12/23
8	T29572626	KW4	1/12/23	22	T29572640	T10	1/12/23
9	T29572627	PB01	1/12/23	23	T29572641	T11	1/12/23
10	T29572628	PB01G	1/12/23	24	T29572642	T12	1/12/23
11	T29572629	T01	1/12/23	25	T29572643	T12G	1/12/23
12	T29572630	T01G	1/12/23	26	T29572644	T13	1/12/23
13	T29572631	T02	1/12/23	27	T29572645	T13G	1/12/23
14	T29572632	T03	1/12/23	28	T29572646	T14	1/12/23

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature.  
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

The truss drawing(s) referenced above have been prepared by  
MiTek USA, Inc. under my direct supervision based on the parameters  
provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: ORegan, Philip  
My license renewal date for the state of Florida is February 28, 2025.



Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

January 12, 2023



RE: 2145086 - REED CONST. - MCDANIEL RES.

MiTek USA, Inc.  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

**Site Information:**

Customer Info: Don Reed Const. Project Name: McDaniel Res. Model: House  
Lot/Block: N/A Subdivision: N/A  
Address: 336 SW Meadow Wood Glen, N/A  
City: Columbai Cty State: FL

No.	Seal#	Truss Name	Date
29	T29572647	T15	1/12/23
30	T29572648	TFG01	1/12/23
31	T29572649	TFG02	1/12/23
32	T29572650	TFG03	1/12/23
33	T29572651	TFKW1	1/12/23

Job	Truss	Truss Type	Qty	Ply	REED CONST. - MCDANIEL RES.	T29572619
2145086	F01	FLOOR	27	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:57:57 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNH0t-L4k?dDsAkMIQbVSGHfVkv9pp0gAEfhvV1CLFwBzw9gO

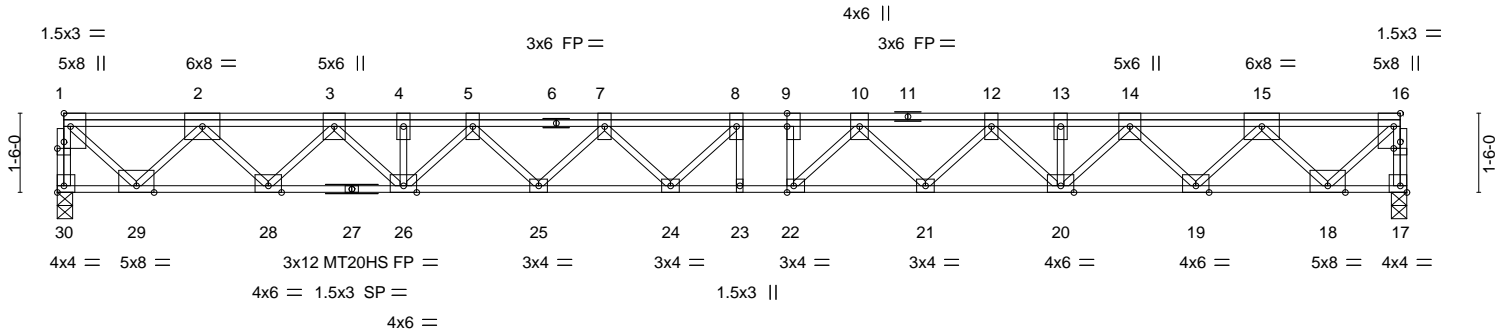
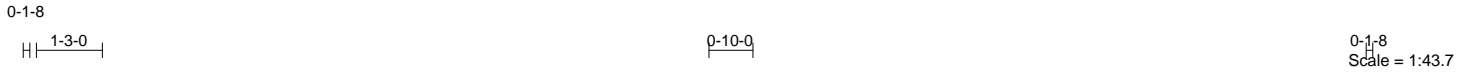


Plate Offsets (X,Y)--	[1:Edge,0-1-8], [1:0-1-8,0-1-8], [9:0-3-0,0-0-0], [16:0-1-8,0-1-8], [16:0-3-0,Edge], [17:Edge,0-1-8], [22:0-1-8,Edge], [30:Edge,0-1-8]
-----------------------	--

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 75.0	Plate Grip DOL 1.00	TC 0.18	Vert(LL) -0.60 23 >503 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.85	Vert(CT) -0.72 23 >420 240	MT20HS	187/143
BCLL 0.0	Rep Stress Incr YES	WB 0.96	Horz(CT) 0.15 17 n/a n/a		
BCDL 5.0	Code FBC2020/TPI2014	Matrix-S			
				Weight: 174 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP M 31(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP M 31(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 30=0-3-8, 17=0-3-8  
Max Grav 30=1520(LC 1), 17=1520(LC 1)


**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 1-30=-1514/0, 16-17=-1514/0, 1-2=-1467/0, 2-3=-3752/0, 3-4=-5544/0, 4-5=-5544/0, 5-7=-6650/0, 7-8=-7192/0, 8-9=-7279/0, 9-10=-7279/0, 10-12=-6638/0, 12-13=-5542/0, 13-14=-5542/0, 14-15=-3752/0, 15-16=-1467/0  
**BOT CHORD** 28-29=0/2766, 26-28=0/4722, 25-26=0/6207, 24-25=0/7079, 23-24=0/7279, 22-23=0/7279, 21-22=0/7046, 20-21=0/6217, 19-20=0/4722, 18-19=0/2766  
**WEBS** 16-18=0/2011, 1-29=0/2011, 15-18=-1885/0, 2-29=-1885/0, 15-19=0/1430, 2-28=0/1430, 14-19=-1406/0, 3-28=-1406/0, 14-20=0/1160, 3-26=0/1163, 12-20=-955/0, 5-26=-937/0, 12-21=0/609, 5-25=0/642, 10-21=-602/0, 7-25=-623/0, 10-22=-343/806, 7-24=-256/522, 9-22=-470/203, 8-24=-544/342

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 3x6 MT20 unless otherwise indicated.
  - 4) The Fabrication Tolerance at joint 27 = 11%
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

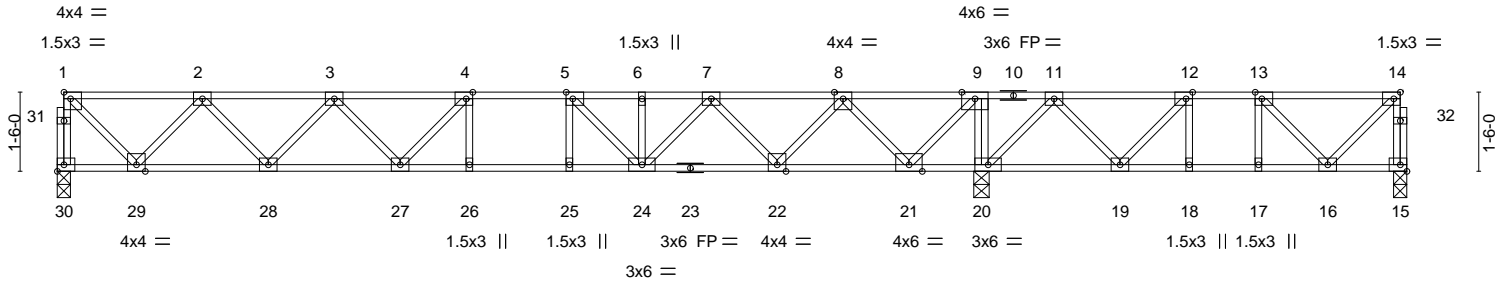
January 12, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
--	---

Job 2145086	Truss F02	Truss Type FLOOR	Qty 3	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572620
----------------	--------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:57:58 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNHot-pHINqZsoVgtHDf1TrN1Z1MMYQ4cRODNfFs5pSdzw9gN



7-10-8	9-7-12	17-6-4	20-1-12	22-10-0	25-7-0
7-10-8	1-9-4	7-10-8	2-7-8	2-8-4	2-9-0

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-1-8,Edge], [5:0-1-8,Edge], [12:0-1-8,Edge], [13:0-1-8,Edge], [14:0-1-8,Edge]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	2-0-0	TC 0.26	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.47	Vert(LL) -0.13 26 >999 360		
BCLL 0.0	Lumber DOL 1.00	WB 0.62	Vert(CT) -0.18 26-27 >999 240		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 20 n/a n/a		
	Code FBC2020/TPI2014			Weight: 140 lb	FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP M 31(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP M 31(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

**REACTIONS.** (size) 30=0-3-0, 15=0-3-0, 20=0-3-8  
Max Uplift 15=-94(LC 3)  
Max Grav 30=859(LC 10), 15=341(LC 4), 20=1737(LC 1)


**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-30=-855/0, 14-15=-338/86, 1-2=-754/0, 2-3=-1823/0, 3-4=-2355/0, 4-5=-2437/0, 5-6=-2079/0, 6-7=-2079/0, 7-8=-1178/0, 8-9=0/490, 9-11=0/1414, 11-12=-187/670, 12-13=-414/342  
BOT CHORD 28-29=0/1415, 27-28=0/2213, 26-27=0/2437, 25-26=0/2437, 24-25=0/2437, 22-24=0/1718, 21-22=-7/607, 20-21=-1414/0, 19-20=-927/0, 18-19=-342/414, 17-18=-342/414, 16-17=-342/414  
WEBS 9-20=-1134/0, 1-29=0/1036, 9-21=0/1307, 2-29=-983/0, 8-21=-1247/0, 2-28=0/606, 8-22=0/882, 3-28=-579/0, 7-22=-833/0, 3-27=0/279, 7-24=0/552, 4-27=-290/127, 5-24=-716/0, 14-16=-174/311, 11-20=-797/0, 13-16=-266/316, 11-19=0/547, 12-18=0/259, 12-19=-638/0

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are 3x4 MT20 unless otherwise indicated.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 12, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
--	---

Job 2145086	Truss F03	Truss Type Floor	Qty 6	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572621
----------------	--------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:57:59 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNHOT-HTsl2vtQGz?8rpcfO4Yoaav2WUJ7jloUWqM\_4zw9gM

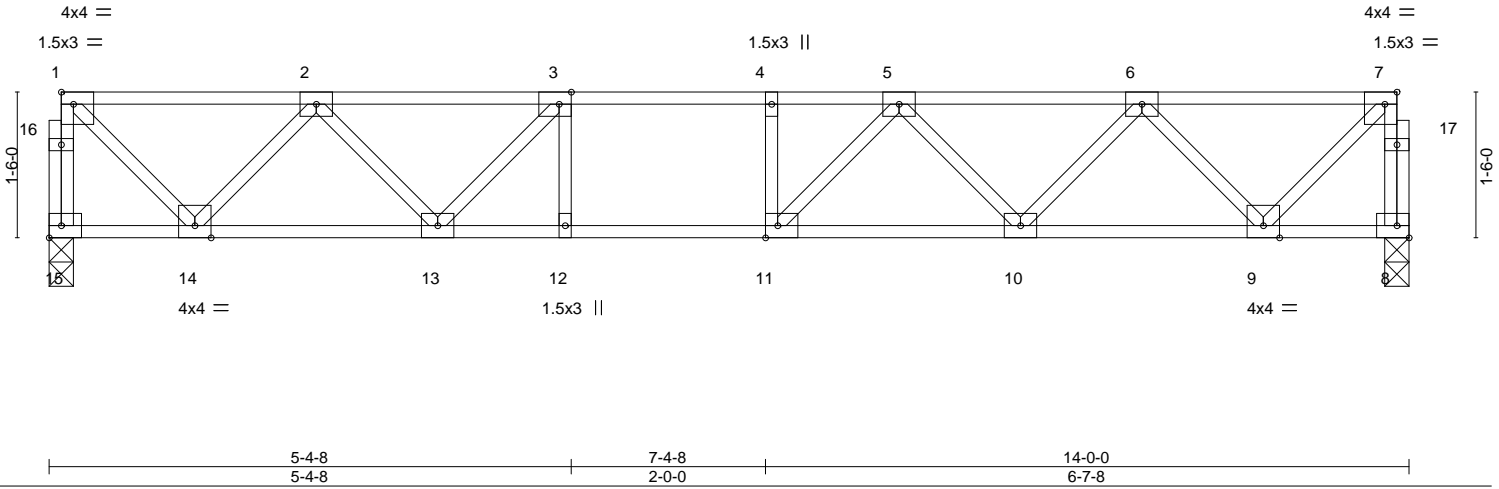
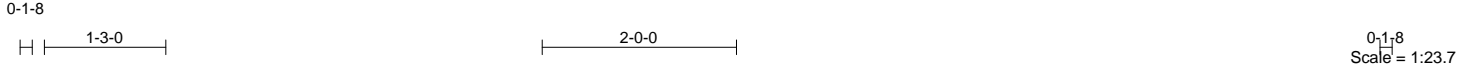


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [3:0-1-8,Edge], [7:0-1-8,Edge], [11:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.62	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.94	Vert(LL) -0.15 10-11 >999 360		
BCLL 0.0	Lumber DOL 1.00	WB 0.42	Vert(CT) -0.19 10-11 >880 240		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 8 n/a n/a		
	Code FBC2020/TPI2014			Weight: 76 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 11-12.

**REACTIONS.** (size) 15=0-3-0, 8=0-3-0  
Max Grav 15=750(LC 1), 8=750(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-15=-747/0, 7-8=-743/0, 1-2=-647/0, 2-3=-1514/0, 3-4=-1851/0, 4-5=-1851/0, 5-6=-1518/0, 6-7=-646/0  
BOT CHORD 13-14=0/1206, 12-13=0/1851, 11-12=0/1851, 10-11=0/1781, 9-10=0/1215  
WEBS 1-14=0/887, 2-14=-832/0, 2-13=0/468, 3-13=-571/0, 7-9=0/886, 6-9=-847/0, 6-10=0/450, 5-10=-391/0, 5-11=-93/352

**NOTES-**  
1) Unbalanced floor live loads have been considered for this design.  
2) All plates are 3x4 MT20 unless otherwise indicated.  
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job 2145086	Truss F04	Truss Type FLOOR	Qty 8	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572622
----------------	--------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:00 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNHOT-lfQ7FFu21H7?SzBryo317nRECuBVsAwjAawXWzw9gL

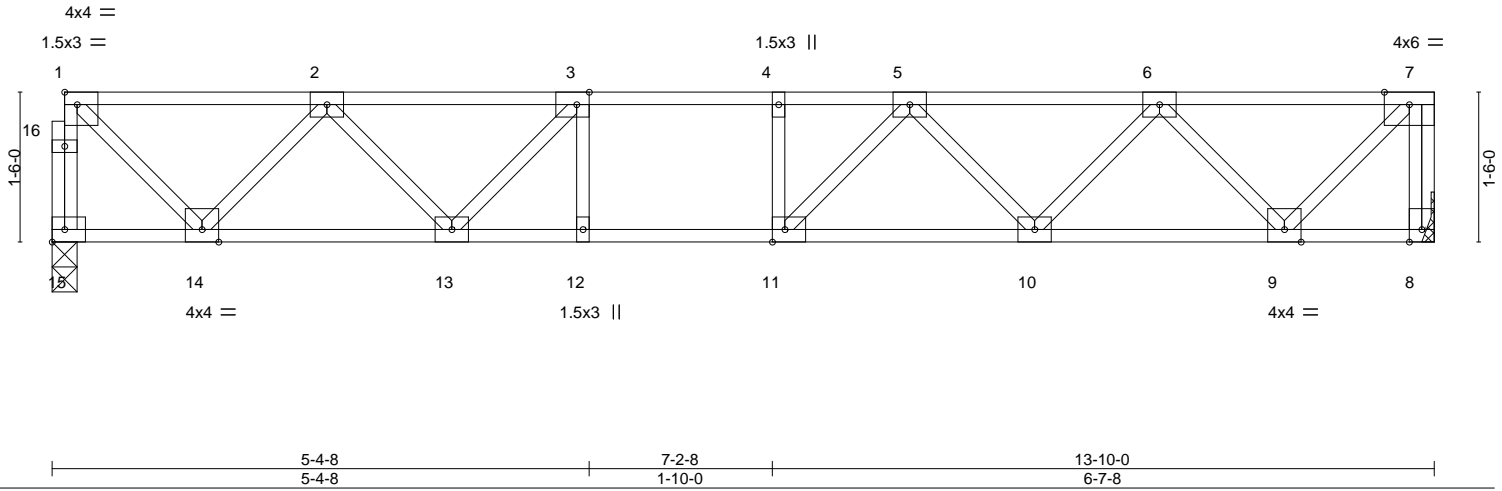
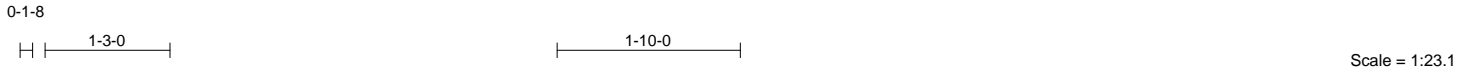


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [3:0-1-8,Edge], [11:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.56	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.88	Vert(LL) -0.13 10-11 >999 360		
BCLL 0.0	Lumber DOL 1.00	WB 0.43	Vert(CT) -0.17 10-11 >967 240		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 8 n/a n/a		
	Code FBC2020/TPI2014			Weight: 76 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 15=0-3-0, 8=Mechanical  
Max Grav 15=741(LC 1), 8=747(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-15=-738/0, 7-8=-740/0, 1-2=-638/0, 2-3=-1488/0, 3-4=-1810/0, 4-5=-1810/0, 5-6=-1492/0, 6-7=-635/0  
BOT CHORD 13-14=0/1190, 12-13=0/1810, 11-12=0/1810, 10-11=0/1747, 9-10=0/1199  
WEBS 1-14=0/875, 2-14=-821/0, 2-13=0/451, 3-13=-545/0, 7-9=0/899, 6-9=-838/0, 6-10=0/436, 5-10=-379/0, 5-11=-101/333

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are 3x4 MT20 unless otherwise indicated.
  - Refer to girder(s) for truss to truss connections.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2145086	Truss F05	Truss Type Floor	Qty 1	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572623
----------------	--------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:01 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNH0t-Ds\_VTbvGobFr46m1WVaGf?\_WyHjAbi?5xqJT3yzw9gK

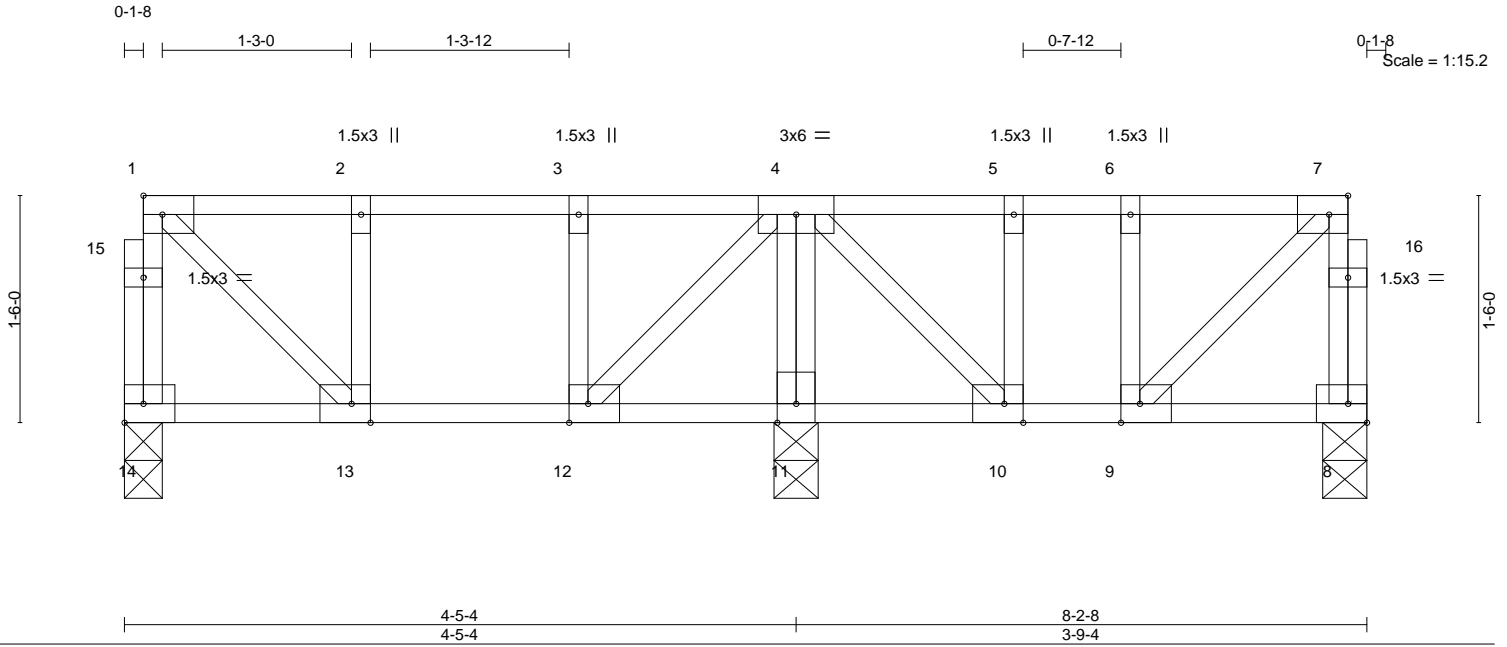


Plate Offsets (X,Y)-- [7:0-1-8,Edge], [9:0-1-8,Edge], [10:0-1-8,Edge], [12:0-1-8,Edge], [13:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.12	Vert(LL) -0.00	13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.08	Vert(CT) -0.00	13	>999	240		
BCLL 0.0	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.00	8	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014	Matrix-S					Weight: 53 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 14=0-3-0, 8=0-3-8, 11=0-3-8  
Max Grav 14=236(LC 10), 8=211(LC 7), 11=454(LC 8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 4-11=436/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 4) CAUTION, Do not erect truss backwards.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601  
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2145086	Truss F06	Truss Type Floor	Qty 5	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572624
----------------	--------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:02 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNHot-h2YugvwJZuNiiGLE4C5VCCXhjh3?K9JFAU30bOzw9gJ

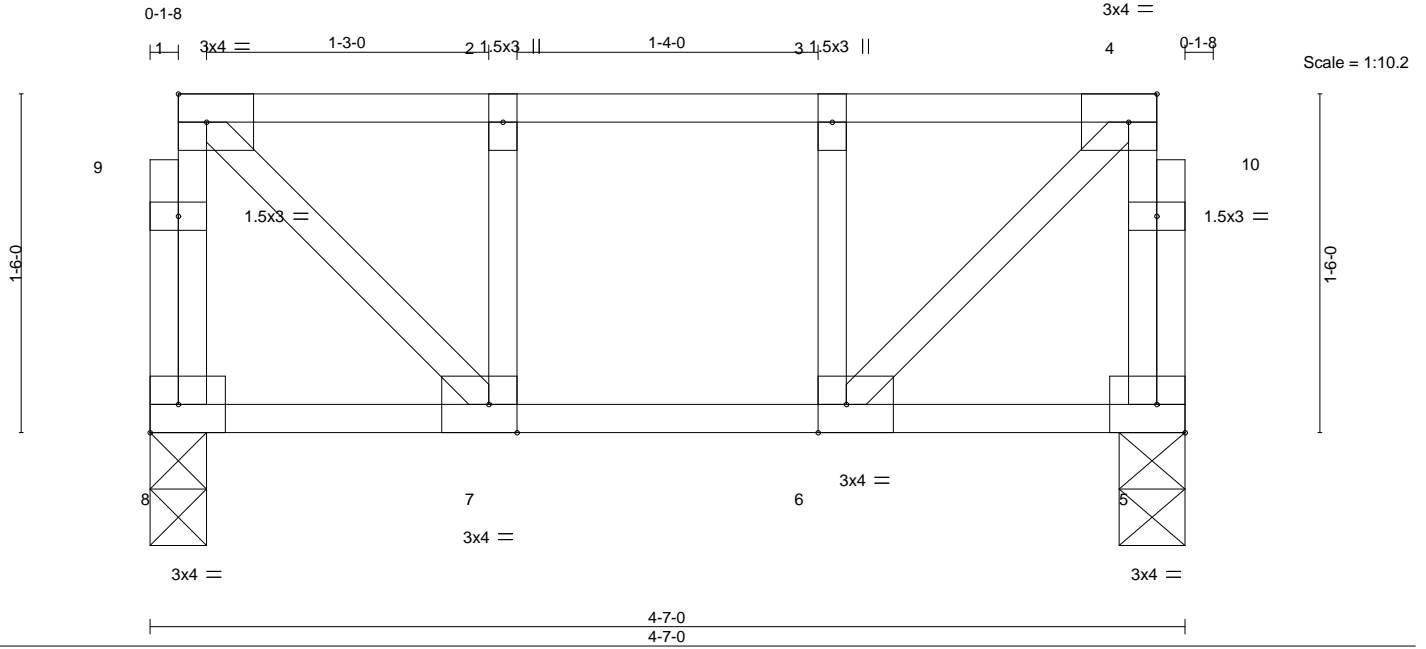


Plate Offsets (X,Y)-- [4:0-1-8,Edge], [6:0-1-8,Edge], [7:0-1-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.11	Vert(LL)	-0.01	7	>999	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.11	Vert(CT)	-0.01	7	>999		
BCLL 0.0	Rep Stress Incr YES	WB 0.11	Horz(CT)	0.00	5	n/a		
BCDL 5.0	Code FBC2020/TPI2014	Matrix-S					Weight: 29 lb	FT = 20%F, 11%E

**LUMBER-**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-7-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 8=0-3-0, 5=0-3-8  
Max Grav 8=232(LC 1), 5=232(LC 1)


**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**  
1) Unbalanced floor live loads have been considered for this design.  
2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
Strongbacks to be attached to walls at their outer ends or restrained by other means.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 12,2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>  Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 16023 Swingley Ridge Rd Chesterfield, MO 63017
--	--

Job	Truss	Truss Type	Qty	Ply	REED CONST. - MCDANIEL RES.	T29572625
2145086	KW3	GABLE	1	1	Job Reference (optional)	

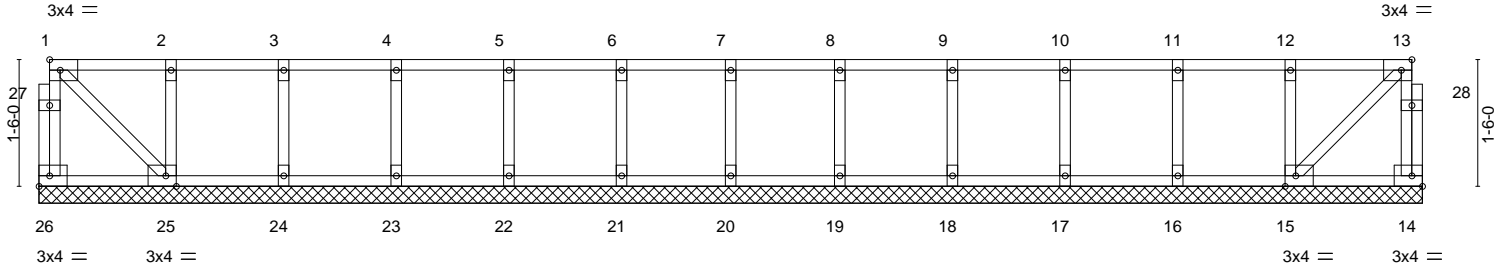
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:03 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNH0t-9E5GuGwxJCVZJQwQdwckkQ3sj5Qj3doOP8oa7rzw9gl

0-1/8

0-1/8

Scale = 1:27.3



1-6-12	2-10-12	4-2-12	5-6-12	6-10-12	8-2-4	9-5-12	10-9-12	12-1-12	13-5-12	14-9-12	16-4-8
1-6-12	1-4-0	1-4-0	1-4-0	1-4-0	1-3-8	1-3-8	1-4-0	1-4-0	1-4-0	1-4-0	1-6-12
Plate Offsets (X,Y)-- [13:0-1-8,Edge], [15:0-1-8,Edge], [25:0-1-8,Edge]											

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 40.0	Plate Grip DOL	1.00	TC 0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	15	n/a	n/a		
BCDL 5.0	Code	FBC2020/TPI2014	Matrix-S						Weight: 81 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 10-0-0 oc bracing: 25-26,14-15.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 16-4-8.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 26, 14, 25, 15, 20, 16, 17, 18, 19, 24, 23, 22, 21


**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Gable requires continuous bottom chord bearing.
  - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 4) Gable studs spaced at 1-4-0 oc.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 12,2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
--	---

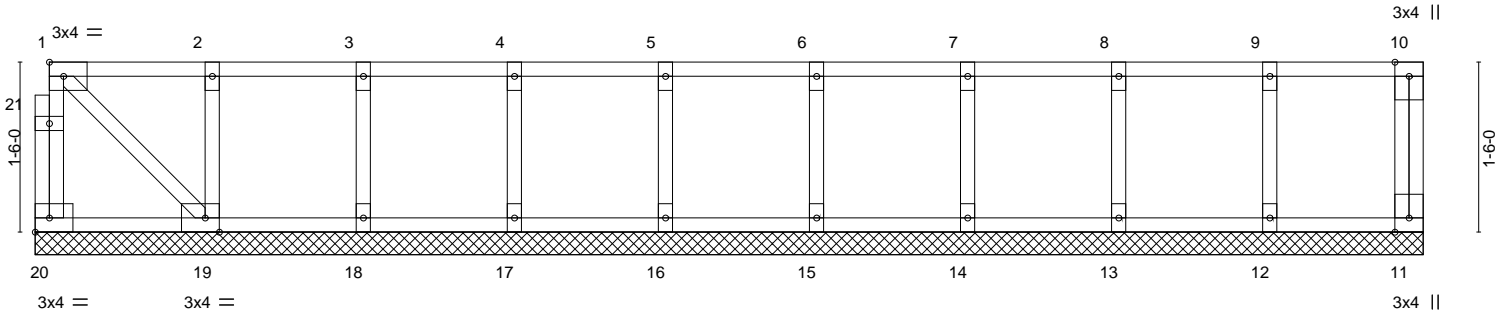
Job 2145086	Truss KW4	Truss Type GABLE	Qty 1	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572626
----------------	--------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:04 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNHot-dRfe5cxZ4WdQxaVcBd7zHdc1TVmyo41XeoY7gHzw9gH

01-8

Scale = 1:20.3



1-6-12	2-10-12	4-2-12	5-6-12	6-10-12	8-2-12	9-6-12	10-10-12	12-3-0
1-6-12	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-4

Plate Offsets (X,Y)-- [19:0-1-8,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	Plate Grip DOL	1.00	TC 0.10	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.00	BC 0.01	Vert(CT)	n/a	-	n/a	999	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	11	n/a	n/a	
BCDL 5.0	Code	FBC2020/TPI2014	Matrix-S						
									Weight: 61 lb FT = 20%F, 11%E

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	
OTHERS 2x4 SP No.3(flat)	

**REACTIONS.** All bearings 12-3-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 13, 12


**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- All plates are 1.5x3 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 12, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 <p>16023 Swingley Ridge Rd Chesterfield, MO 63017</p>
--	---

Job 2145086	Truss PB01	Truss Type Piggyback	Qty 16	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572627
----------------	---------------	-------------------------	-----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:05 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNH0t-6dD0JyyBrpHk4plLfCqr98Av2zXVWWhsSHhCjzw9gG

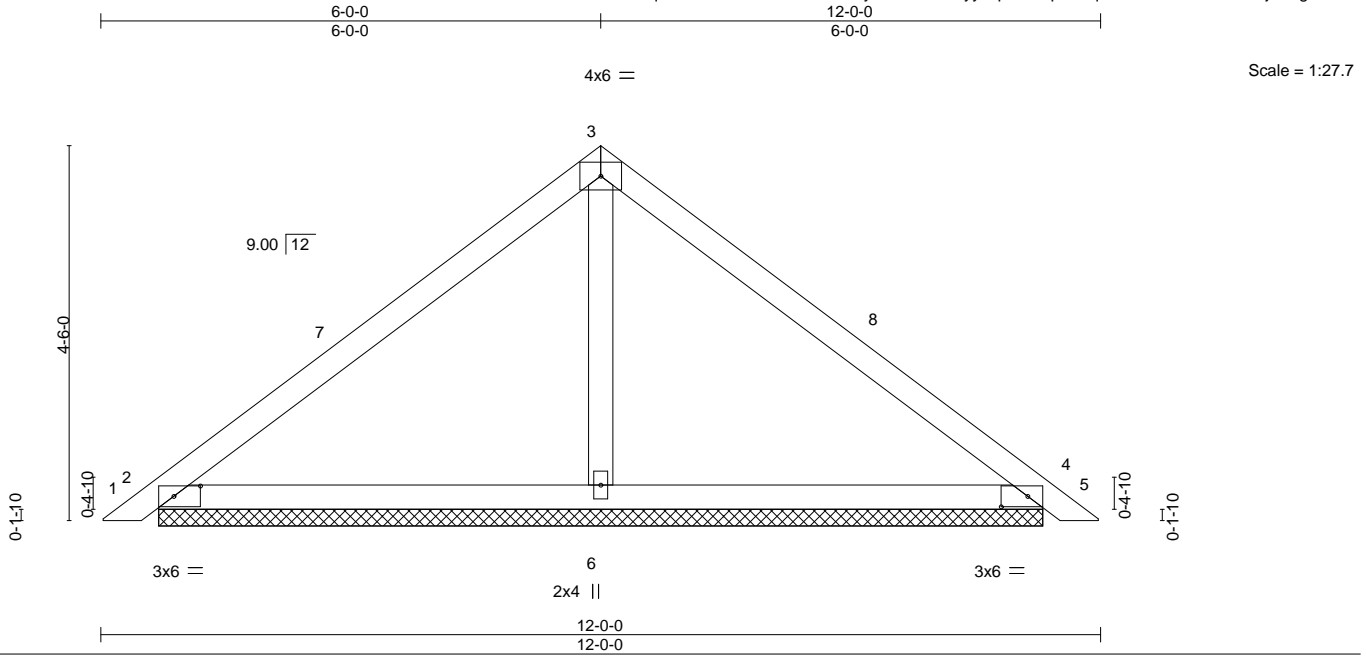


Plate Offsets (X,Y)-- [2:0-3-13,0-1-8], [4:0-3-13,0-1-8]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.36	Vert(LL)	0.01	5	n/r	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.28	Vert(CT)	0.02	5	n/r		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.08	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 44 lb	FT = 20%
	Code FBC2020/TP12014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** (size) 2=10-7-5, 4=10-7-5, 6=10-7-5  
 Max Horz 2=-101(LC 10)  
 Max Uplift 2=-65(LC 12), 4=-79(LC 13), 6=-60(LC 12)  
 Max Grav 2=243(LC 1), 4=243(LC 1), 6=415(LC 1)


**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-1 to 3-3-1, Interior(1) 3-3-1 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 11-8-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 2, 79 lb uplift at joint 4 and 60 lb uplift at joint 6.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

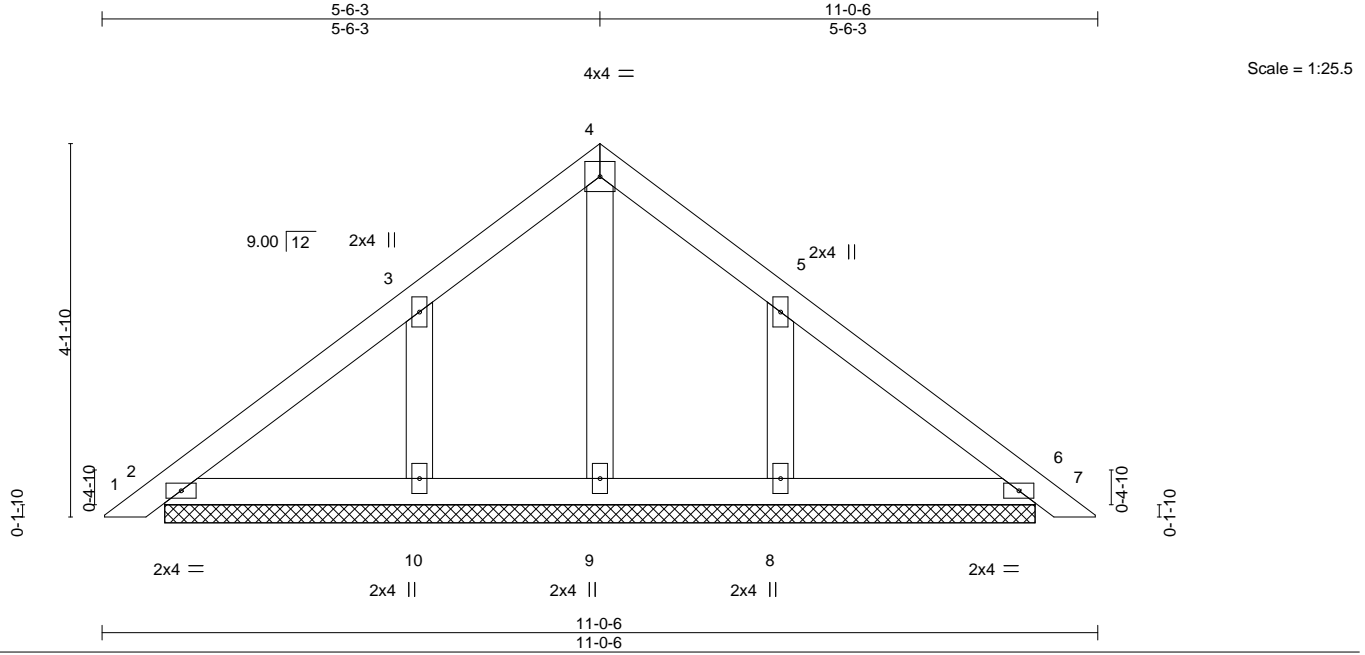
Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 <p>16023 Swingley Ridge Rd        Chesterfield, MO 63017</p>
---	--

Job 2145086	Truss PB01G	Truss Type GABLE	Qty 2	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572628
----------------	----------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:06 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNHOT-apnOWIzpc7u8Aue?J2ARM2hNwIQbGy?q561EkAzw9gF



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.10	Vert(LL) 0.00	7	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.06	Vert(CT) 0.00	7	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 46 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 9-7-11.  
 (lb) - Max Horz 2=-93(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-130(LC 12), 8=-129(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=256(LC 19), 8=256(LC 20)


**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-3-1 to 3-6-3, Exterior(2N) 3-6-3 to 5-6-3, Corner(3R) 5-6-3 to 8-6-3, Exterior(2N) 8-6-3 to 10-9-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 10=130, 8=129.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b>          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 16023 Swingley Ridge Rd Chesterfield, MO 63017
--	--



Job 2145086	Truss T01	Truss Type Scissor	Qty 24	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572629
----------------	--------------	-----------------------	-----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:07 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-20LnjezRNR0?o1DBsmhgvGER\_ifb?Jw\_KmmnGczw9gE



4x4 =

Scale: 3/16"=1'

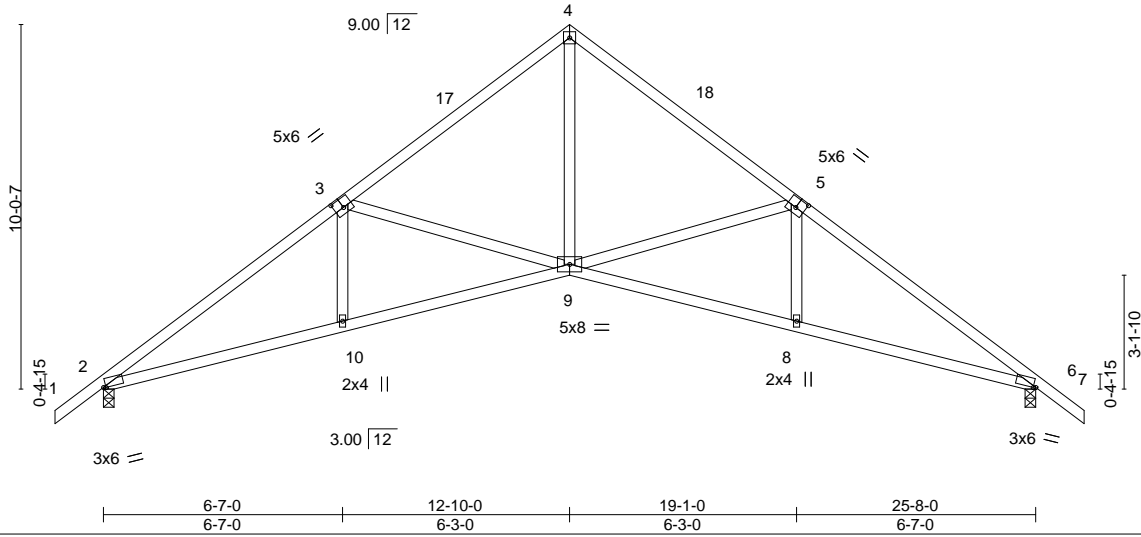


Plate Offsets (X,Y)-- [2:0-0-13,0-0-4], [3:0-3-0,0-3-0], [5:0-3-0,0-3-0], [6:0-0-13,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.53	Vert(LL) -0.09 9 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.47	Vert(CT) -0.21 9-10 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.15 6 n/a n/a		
	Code FBC2020/TPI2014			Weight: 130 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-9-10 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 9-2-14 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=249(LC 11)  
 Max Uplift 2=-237(LC 12), 6=-237(LC 13)  
 Max Grav 2=1107(LC 1), 6=1107(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2011/420, 3-4=-1394/280, 4-5=-1394/316, 5-6=-2011/341  
 BOT CHORD 2-10=-392/1664, 9-10=-390/1664, 8-9=-200/1589, 6-8=-201/1588  
 WEBS 4-9=-226/1178, 5-9=-588/318, 5-8=0/267, 3-9=-583/314, 3-10=0/267

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-10-0, Exterior(2R) 12-10-0 to 15-10-0, Interior(1) 15-10-0 to 27-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=237, 6=237.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



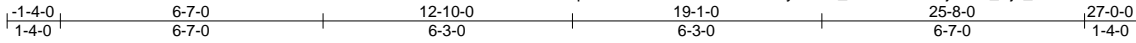
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 2145086	Truss T01G	Truss Type GABLE	Qty 2	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572630
----------------	---------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:09 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNHOTX8K?iv2Gj1LLNa\_Bj9\_hJmEWRcTGnHn4FuLUzw9gC



4x6 =

Scale = 1:57.7

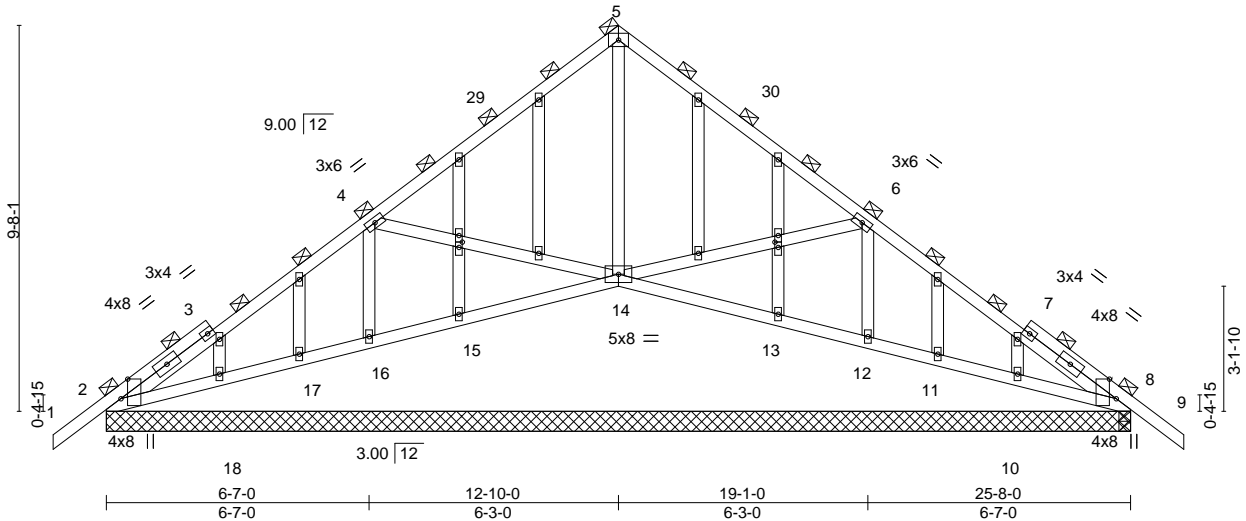


Plate Offsets (X,Y)-- [2:0-5-14,Edge], [8:0-5-14,Edge], [21:0-1-10,0-1-0], [27:0-1-10,0-1-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.54	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.17	Vert(LL) -0.01 14-15 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.26	Vert(CT) -0.01 14-15 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 8 n/a n/a		
	Code FBC2020/TPI2014			Weight: 168 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD 2-0-0 oc purlins (6-0-0 max.).  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

All bearings 25-8-0.  
 (lb) - Max Horz 2=-241(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 14, 18, 10 except 12=-209(LC 13), 16=-282(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 15, 17, 18, 13, 11, 10 except 14=382(LC 1), 12=476(LC 24), 16=563(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-4=-179/306  
 WEBS 5-14=-350/85, 6-12=-442/213, 4-16=-528/287

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-10-0, Exterior(2R) 12-10-0 to 15-10-0, Interior(1) 15-10-0 to 27-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 14, 18, 10 except (jt=lb) 12=209, 16=282.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 2145086	Truss T02	Truss Type Roof Special	Qty 10	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572631
----------------	--------------	----------------------------	-----------	----------	---	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:10 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-Sa0vMg0KgMOafVymYuEOXusyowifCg6QOk?Rtxzw9gB

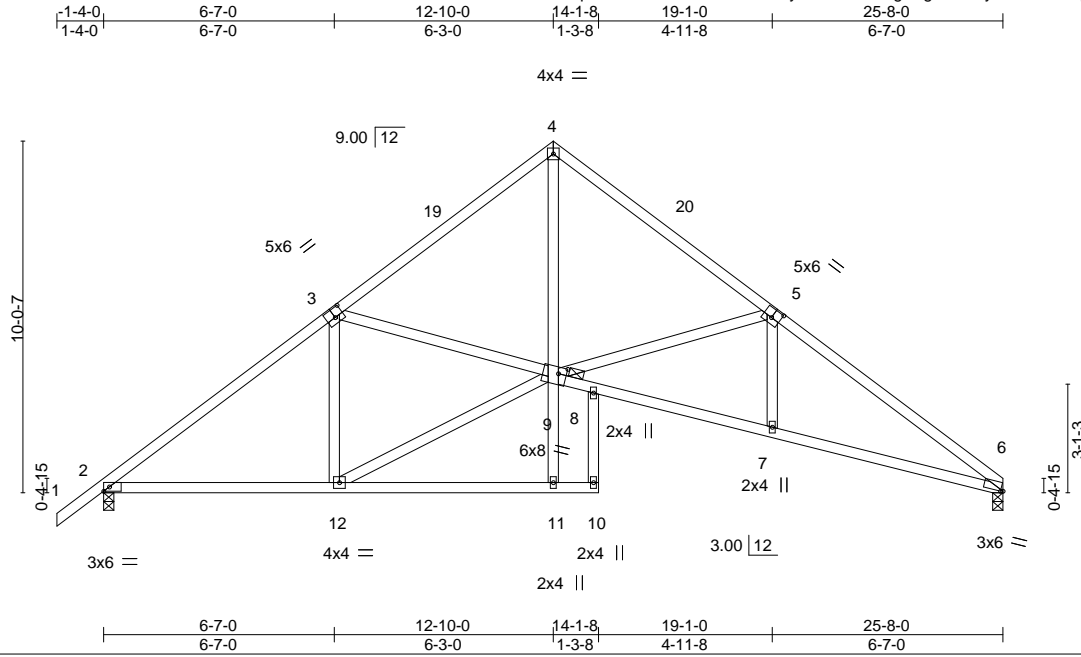


Plate Offsets (X,Y)--	[3:0-3-0,0-3-0], [5:0-3-0,0-3-0], [6:0-0-13,0-0-4], [9:0-2-12,0-2-4]
-----------------------	--

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.49	Vert(LL) -0.08	7-8	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.50	Vert(CT) -0.17	7-8	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.51	Horz(CT) 0.11	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 150 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-15 oc purlins.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
8-10: 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 9
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=242(LC 9)  
 Max Uplift 2=-238(LC 12), 6=-206(LC 13)  
 Max Grav 2=1109(LC 1), 6=1025(LC 1)


**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1422/283, 3-4=-1377/280, 4-5=-1410/323, 5-6=-2027/380  
 BOT CHORD 2-12=-274/1094, 8-9=-226/1588, 7-8=-233/1596, 6-7=-237/1604  
 WEBS 3-12=-372/153, 9-11=0/254, 4-9=-231/1182, 5-9=-591/328, 5-7=0/251, 9-12=-298/1201

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-10-0, Exterior(2R) 12-10-0 to 15-10-0, Interior(1) 15-10-0 to 25-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=238, 6=206.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

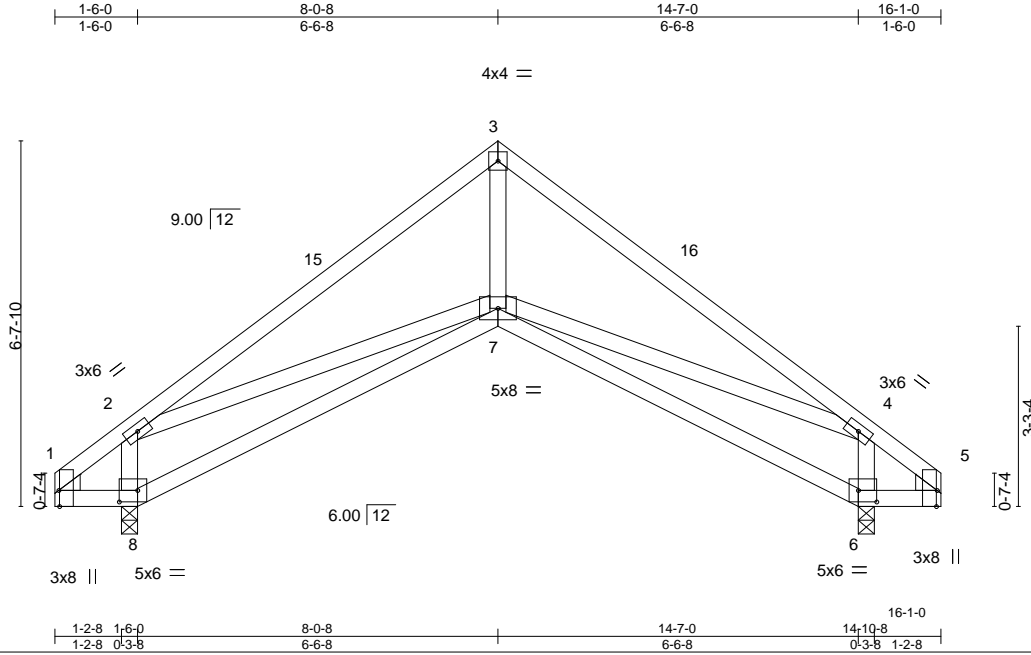
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 <p>16023 Swingley Ridge Rd          Chesterfield, MO 63017</p>
--	--

Job 2145086	Truss T03	Truss Type Roof Special	Qty 6	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572632
----------------	--------------	----------------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:11 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-wnaHZ?0yRfWRHfXy5bld36P65J4Px3B3ZF0k?PNzw9gA



Scale = 1:41.8

Plate Offsets (X,Y)-- [1:0-3-8,Edge], [5:0-3-8,Edge], [6:0-4-0,0-2-8], [8:0-4-0,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.52	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.34	Vert(LL) -0.07 7-8 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.21	Vert(CT) -0.14 7-8 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 6 n/a n/a		
	Code FBC2020/TPI2014			Weight: 86 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-4-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=-142(LC 8)  
 Max Uplift 8=-131(LC 12), 6=-131(LC 13)  
 Max Grav 8=643(LC 1), 6=643(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-869/124, 3-4=-869/164  
 BOT CHORD 7-8=-218/287  
 WEBS 3-7=-29/563, 4-7=-107/613, 4-6=-659/295, 2-7=0/524, 2-8=-675/337

- NOTES-**
- Unbalanced roof live loads HAVING been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 8-0-8, Exterior(2R) 8-0-8 to 11-0-8, Interior(1) 11-0-8 to 16-1-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=131, 6=131.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12,2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

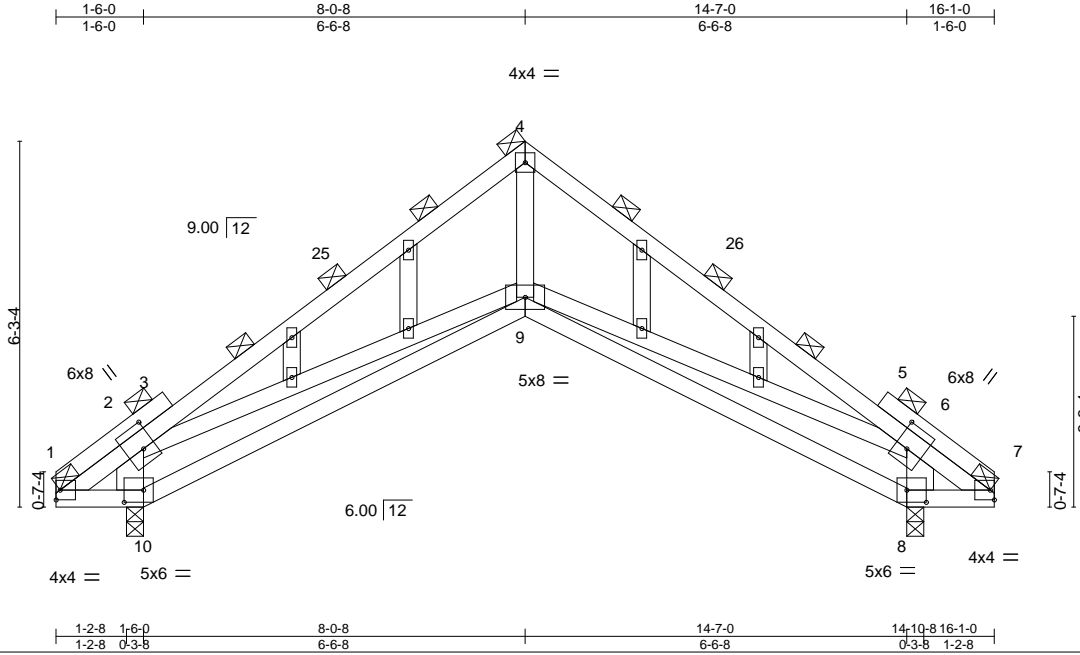


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	REED CONST. - MCDANIEL RES.	T29572633
2145086	T03G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:12 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNH0t-Oz8gnL1aCzelup69fJHscJxIWjPHgefjT2UYypzw9g9



Scale = 1:39.5

Plate Offsets (X,Y)-- [2:0-5-0,0-2-8], [6:0-5-0,0-2-8], [8:0-4-0,0-2-8], [10:0-4-0,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.48	Vert(LL) -0.07	9-10	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.37	Vert(CT) -0.15	9-10	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.25	Horz(CT) 0.07	8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 98 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 6-8,2-10: 2x6 SP No.2  
 OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD 2-0-0 oc purlins (5-2-9 max.).  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 10=0-3-8, 8=0-3-8  
 Max Horz 10=133(LC 9)  
 Max Uplift 10=-133(LC 12), 8=-133(LC 13)  
 Max Grav 10=643(LC 1), 8=643(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-321/154, 2-4=-941/136, 4-6=-941/172, 6-7=-307/142  
 BOT CHORD 1-10=-241/458, 9-10=-292/473, 8-9=-184/353, 7-8=-223/438  
 WEBS 4-9=-53/691, 6-9=-126/541, 6-8=-741/322, 2-9=0/446, 2-10=-752/364

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 8-0-8, Exterior(2R) 8-0-8 to 11-0-8, Interior(1) 11-0-8 to 16-1-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=133, 8=133.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

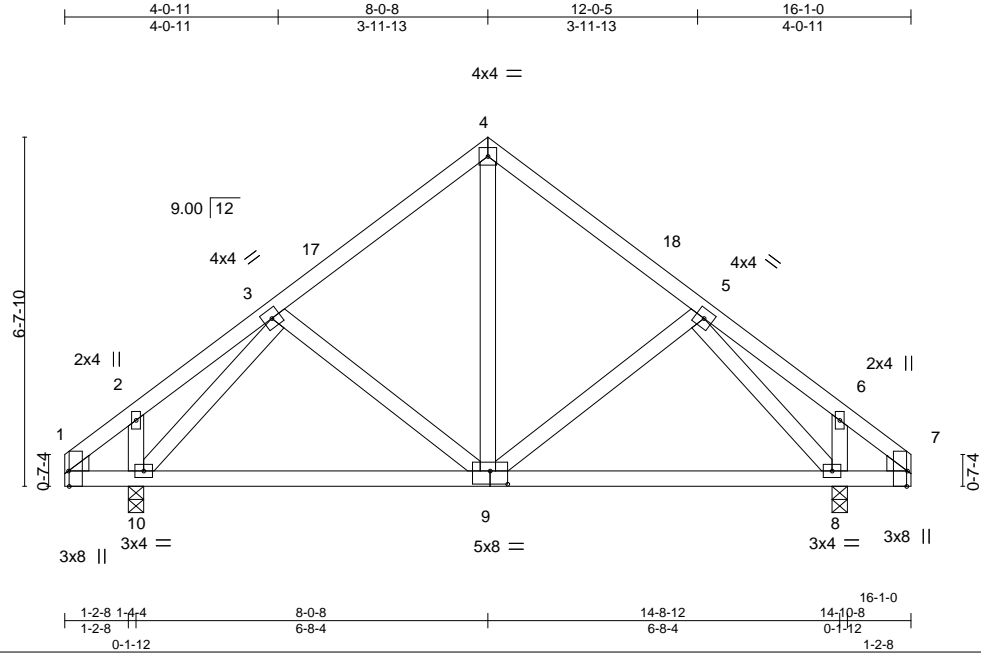
Job 2145086	Truss T04	Truss Type Common	Qty 1	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572634
----------------	--------------	----------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:13 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-t9i2\_h2CzHm8WYhLD0o58XUY27lcP6\_siiD6UGzw9g8



Scale = 1:43.8

Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-3-8,Edge], [9:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.17	Vert(LL) -0.03	9-10	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.36	Vert(CT) -0.06	9-10	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.18	Horz(CT) 0.01	8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 94 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6'-0'-0" oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10'-0'-0" oc bracing.

**REACTIONS.**

(size) 10=0-3-8, 8=0-3-8  
 Max Horz 10=-142(LC 10)  
 Max Uplift 10=-130(LC 12), 8=-130(LC 13)  
 Max Grav 10=643(LC 1), 8=643(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 3-4=-441/150, 4-5=-443/151  
 BOT CHORD 9-10=-121/389, 8-9=-49/334  
 WEBS 4-9=-67/268, 3-10=-513/153, 5-8=-516/152

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 8-0-8, Exterior(2R) 8-0-8 to 11-0-8, Interior(1) 11-0-8 to 16-1-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=130, 8=130.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

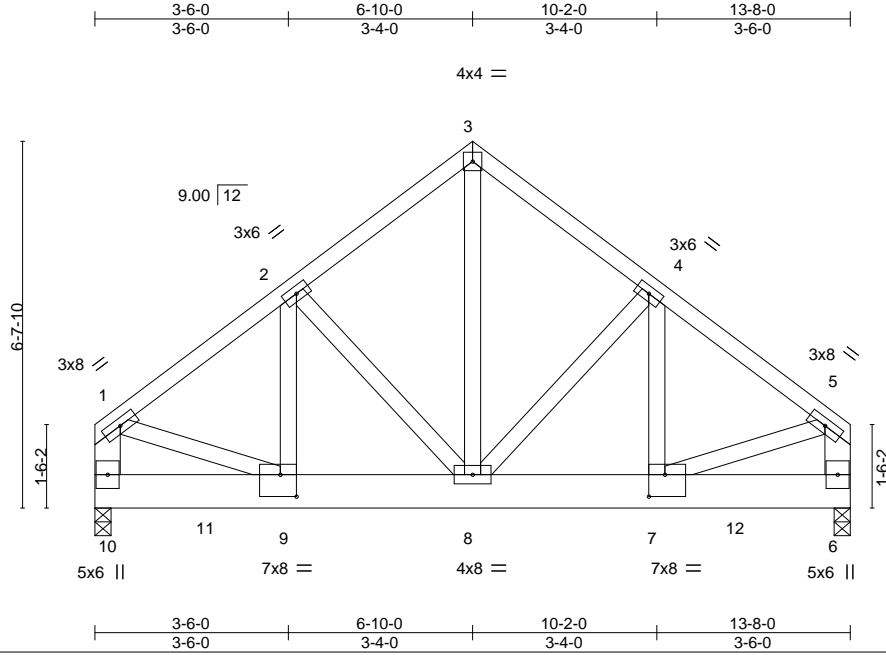


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job 2145086	Truss T05	Truss Type ROOF TRUSS	Qty 1	Ply 3	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572635
----------------	--------------	--------------------------	----------	----------	---	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:14 2023 Page 1  
 ID:HqPYDwS0IMBewR4XvSFurByNHot-LMGQB13qkau?86GXnkJKhk1gLX6e8WS0xMzf0izw9g7



Scale = 1:41.7

Plate Offsets (X,Y)-- [7:0-3-8,0-4-12], [9:0-3-8,0-4-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.31	Vert(LL) -0.02 9-10 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.36	Vert(CT) -0.04 9-10 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.00 6 n/a n/a		
	Code FBC2020/TPI2014			Weight: 338 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 1-10,5-6: 2x6 SP No.2	

**REACTIONS.** (size) 10=0-3-8, 6=0-3-8  
 Max Horz 10=-116(LC 6)  
 Max Uplift 10=-1739(LC 8), 6=-1200(LC 9)  
 Max Grav 10=6414(LC 1), 6=4480(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-4494/1220, 2-3=-2550/743, 3-4=-2552/743, 4-5=-3600/970, 1-10=-3746/1013, 5-6=-3065/823  
 BOT CHORD 9-10=-327/962, 8-9=-998/3568, 7-8=-743/2826, 6-7=-159/553  
 WEBS 3-8=-802/2783, 4-8=-1245/425, 4-7=-359/1390, 2-8=-2300/719, 2-9=-727/2713, 1-9=-743/2831, 5-7=-630/2421

- NOTES-**
- 1) N/A
  - 2) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 4 rows staggered at 0-4-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 3) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - 4) Unbalanced roof live loads have been considered for this design.
  - 5) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - 6) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 10=1739, 6=1200.
  - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 5490 lb down and 1529 lb up at 2-0-12, and 2910 lb down and 811 lb up at 11-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.


This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

LOAD CASE(S) Standard  
 Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 2145086	Truss T05	Truss Type ROOF TRUSS	Qty 1	Ply <b>3</b>	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572635
----------------	--------------	--------------------------	----------	-----------------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:14 2023 Page 2  
ID:HqPYDwS0IMBewR4XvSFurByNH0t-LMGQB13qkau?86GXnkJKhk1gLX6e8WS0xMzf0izw9g7

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-60, 3-5=-60, 10-11=-20, 11-12=-170(B=-150), 6-12=-20  
Concentrated Loads (lb)  
Vert: 11=-5490(B) 12=-2910(B)

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2145086	Truss T08A	Truss Type Monopitch	Qty 2	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572637
----------------	---------------	-------------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:17 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNHHot-lxyYq35j0VGa?\_a\_6Sss1JNe2fk8gLulSdJBjd1zw9g4

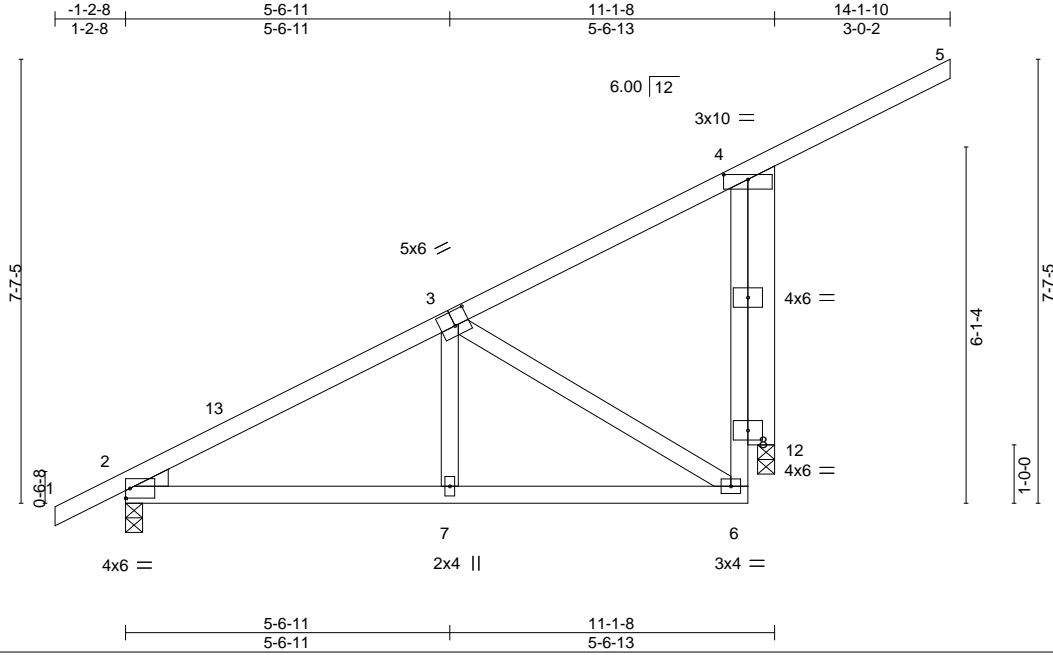


Plate Offsets (X,Y)-- [3:0-3-0,0-3-0], [4:0-5-0,0-1-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.90	Vert(LL)	-0.02	7-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.29	Vert(CT)	-0.04	7-11	>999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.29	Horz(CT)	0.01	12	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 74 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x6 SP No.2  
WEDGE  
Left: 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8  
Max Horz 2=269(LC 12)  
Max Uplift 2=-58(LC 12), 12=-287(LC 12)  
Max Grav 2=488(LC 1), 12=643(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-522/0, 6-8=-110/274, 4-8=-110/274  
BOT CHORD 2-7=-212/403, 6-7=-212/402  
WEBS 3-6=-450/243, 4-12=-642/461

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-2-8 to 1-9-8, Interior(1) 1-9-8 to 14-1-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 2 and 287 lb uplift at joint 12.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 12,2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2145086	Truss T09G	Truss Type GABLE	Qty 1	Ply 1	REED CONST. - MCDANIEL RES.	T29572639
Builders FirstSource, Lake City, FL 32055					8.530 s Jan 6 2022 MiTek Industries, Inc. Thu Jan 12 11:53:33 2023 Page 1	
ID:HqPYDwS0IMBewR4XvSFurByNHOT-wvCJSHO_iPgIjycEF8QPdPlaq_wnl8sCbUdH3rzw6DW					Job Reference (optional)	
15-1-5 15-1-5			26-1-11 11-0-6		33-10-8 7-8-13	
9.00   12			11 12 13 14 15 16 17 18 19		34-4-8 0-6-0	

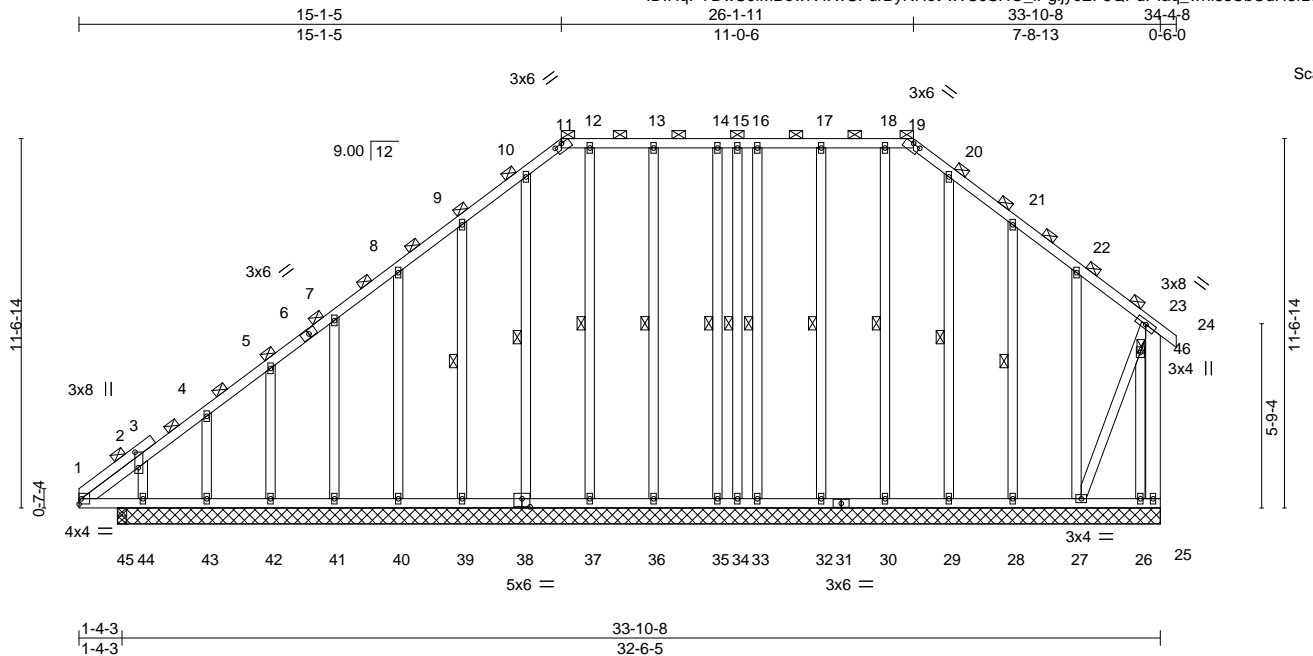


Plate Offsets (X,Y)--	[2:0-5-13,0-1-4], [11:0-3-0,0-0-1], [19:0-3-0,0-0-1], [38:0-3-0,0-3-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.25	TC 0.10	Vert(LL) -0.00 44 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.25	Vert(CT) -0.00 44 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(CT) -0.00 26 n/a n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S		Weight: 356 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins (6-0-0 max.).
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
WEBS 2x4 SP No.3 *Except*	10-0-0 oc bracing: 26-27,25-26.
OTHERS 23-25: 2x6 SP No.2	WEBS 1 Row at midpt 15-34, 21-28, 20-29, 18-30, 17-32, 16-33,
	9-39, 10-38, 12-37, 13-36, 14-35
	JOINTS 1 Brace at Jt(s): 11, 19, 46

**REACTIONS.** All bearings 32-8-0 except (jt=length) 45=0-3-8.  
 (lb) - Max Horz 44=287(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 34, 26, 28, 29, 30, 32, 33, 42, 41, 40, 38, 37, 36, 35 except 27=260(LC 13), 44=278(LC 12), 43=118(LC 12), 39=103(LC 12), 25=138(LC 9), 45=176(LC 10)  
 Max Grav All reactions 250 lb or less at joint(s) 34, 26, 28, 29, 30, 32, 33, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 25 except 27=359(LC 20), 45=364(LC 12)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=269/174


- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GC<sub>pi</sub>=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 15-1-5, Corner(3R) 15-1-5 to 18-0-0, Exterior(2N) 18-0-0 to 26-1-11, Corner(3R) 26-1-11 to 29-3-0, Exterior(2N) 29-3-0 to 34-4-8 zone; cantilever left exposed; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 34, 26, 28, 29, 30, 32, 33, 42, 41, 40, 38, 37, 36, 35 except (jt=lb) 27=260, 44=278, 43=118, 39=103, 25=138, 45=176.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job 2145086	Truss T10	Truss Type PIGGYBACK BASE	Qty 2	Ply 1	REED CONST. - MCDANIEL RES.	T29572640
----------------	--------------	------------------------------	----------	----------	-----------------------------	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:22 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-6ulRtm9rr2vt5L4FPSC0QM\_Dlm904FBmbv4IEzw9g?

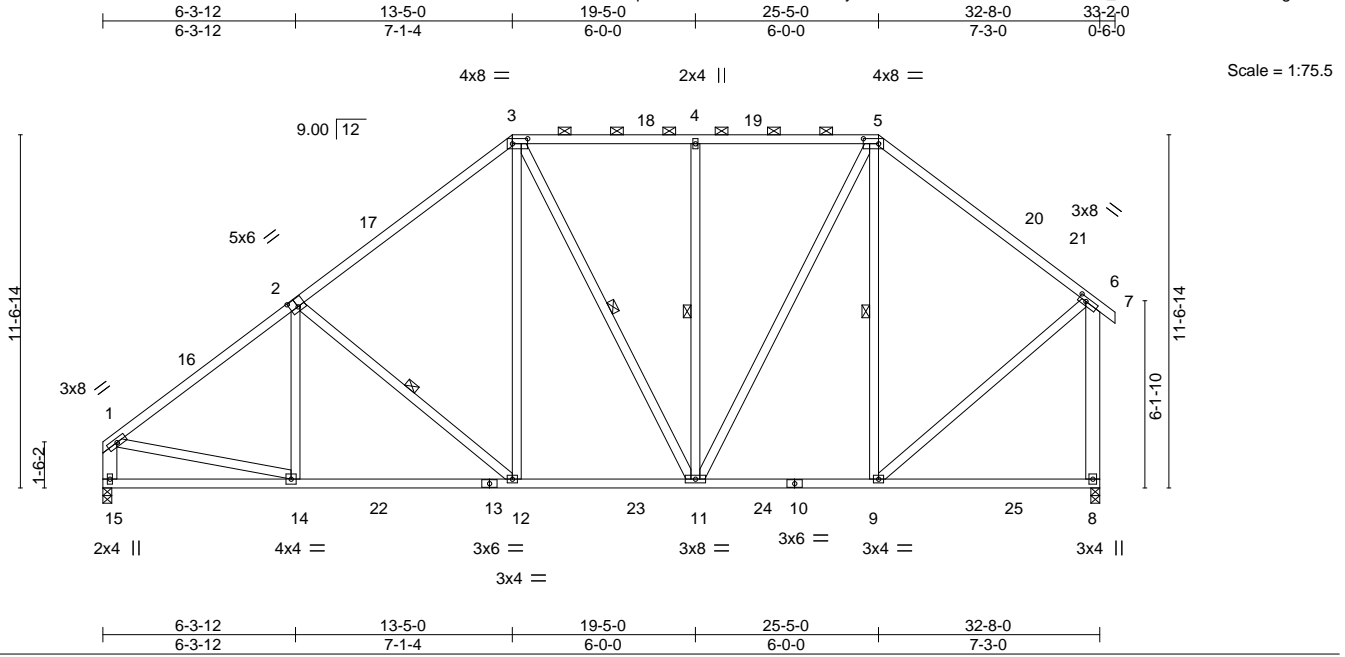


Plate Offsets (X,Y)-- [2:0-3-0,0-3-4], [3:0-6-0,0-2-0], [5:0-6-0,0-2-0], [6:0-3-0,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.59	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.59	Vert(LL) -0.09 12-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.63	Vert(CT) -0.18 12-14 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.03 8 n/a n/a		
	Code FBC2020/TPI2014			Weight: 252 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 3-11,5-11: 2x4 SP No.2, 1-15,6-8: 2x6 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-0-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-5-9 max.): 3-5.  
 BOT CHORD Rigid ceiling directly applied or 9-7-8 oc bracing.  
 WEBS 1 Row at midpt 2-12, 3-11, 4-11, 5-9

**REACTIONS.**

(size) 15=0-3-8, 8=0-3-8  
 Max Horz 15=329(LC 11)  
 Max Uplift 15=-287(LC 12), 8=-278(LC 13)  
 Max Grav 15=1446(LC 2), 8=1521(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-1682/347, 2-3=-1413/372, 3-4=-1036/332, 4-5=-1036/332, 5-6=-1051/262,  
 1-15=-1354/301, 6-8=-1374/294  
 BOT CHORD 14-15=-319/306, 12-14=-377/1402, 11-12=-296/1069, 9-11=-177/743  
 WEBS 2-12=-438/242, 3-12=-113/562, 4-11=-401/199, 5-11=-221/658, 5-9=-361/167,  
 1-14=-159/1216, 6-9=-192/909

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 13-5-0, Exterior(2R) 13-5-0 to 17-7-15, Interior(1) 17-7-15 to 25-5-0, Exterior(2R) 25-5-0 to 29-7-15, Interior(1) 29-7-15 to 33-2-0 zone; end vertical right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=287, 8=278.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

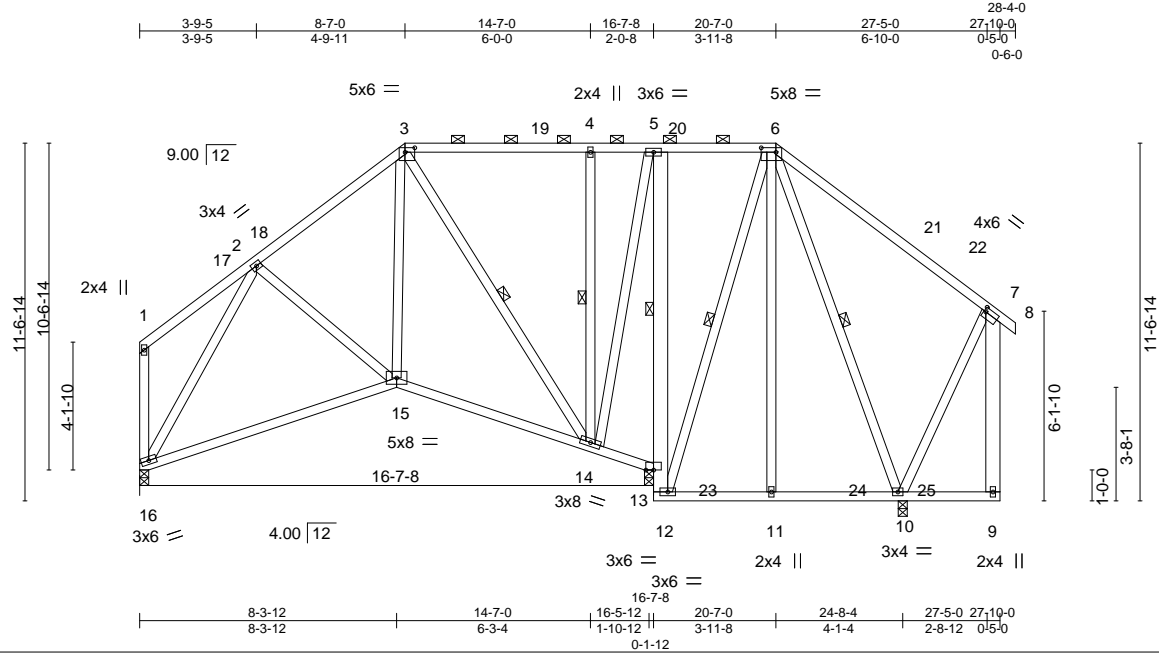
Job 2145086	Truss T11	Truss Type PIGGYBACK BASE	Qty 2	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572641
----------------	--------------	------------------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:23 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-a5Jq46AUcL1kjVSGo7zRYeu9o96blWIK?FedrhzW9g\_



Scale = 1:74.5

Plate Offsets (X,Y)-- [3:0-3-12,0-1-12], [6:0-5-12,0-1-12], [7:0-0-12,0-1-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.54	Vert(LL) -0.17	15-16	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.64	Vert(CT) -0.34	15-16	>586	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.68	Horz(CT) 0.03	13	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 272 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-6.
BOT CHORD 2x4 SP No.2 *Except* 5-12: 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-14. 1 Row at midpt 5-13
WEBS 2x4 SP No.3 *Except* 7-9: 2x6 SP No.2	WEBS 1 Row at midpt 3-14, 4-14, 6-12, 6-10

**REACTIONS.** (size) 13=0-3-8, 10=0-3-8, 16=0-3-8  
 Max Horz 16=307(LC 11)  
 Max Uplift 13=-436(LC 9), 10=-205(LC 8), 16=-168(LC 12)  
 Max Grav 13=1166(LC 2), 10=654(LC 20), 16=671(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-546/220  
 BOT CHORD 15-16=-303/519, 14-15=-248/480, 12-13=-236/332, 5-13=-809/332  
 WEBS 3-15=-165/555, 3-14=-604/246, 4-14=-330/166, 5-14=-261/725, 6-12=-288/168,  
 6-10=-289/177, 7-10=-322/214, 2-16=-622/182


- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-7-0, Exterior(2R) 8-7-0 to 12-9-15, Interior(1) 12-9-15 to 20-7-0, Exterior(2R) 20-7-0 to 24-9-15, Interior(1) 24-9-15 to 28-4-0 zone; cantilever right exposed; end vertical right exposed; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Bearing at joint(s) 13, 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=436, 10=205, 16=168.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



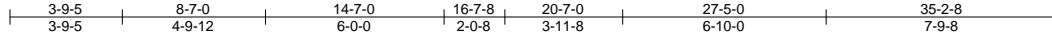
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 2145086	Truss T12	Truss Type Piggyback Base	Qty 7	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572642
----------------	--------------	------------------------------	----------	----------	---	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:24 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-2HtCISA6Nf9bLf1SMqUg5rRkaZSZUyIUevOBM7zw9fz



Scale = 1:77.4

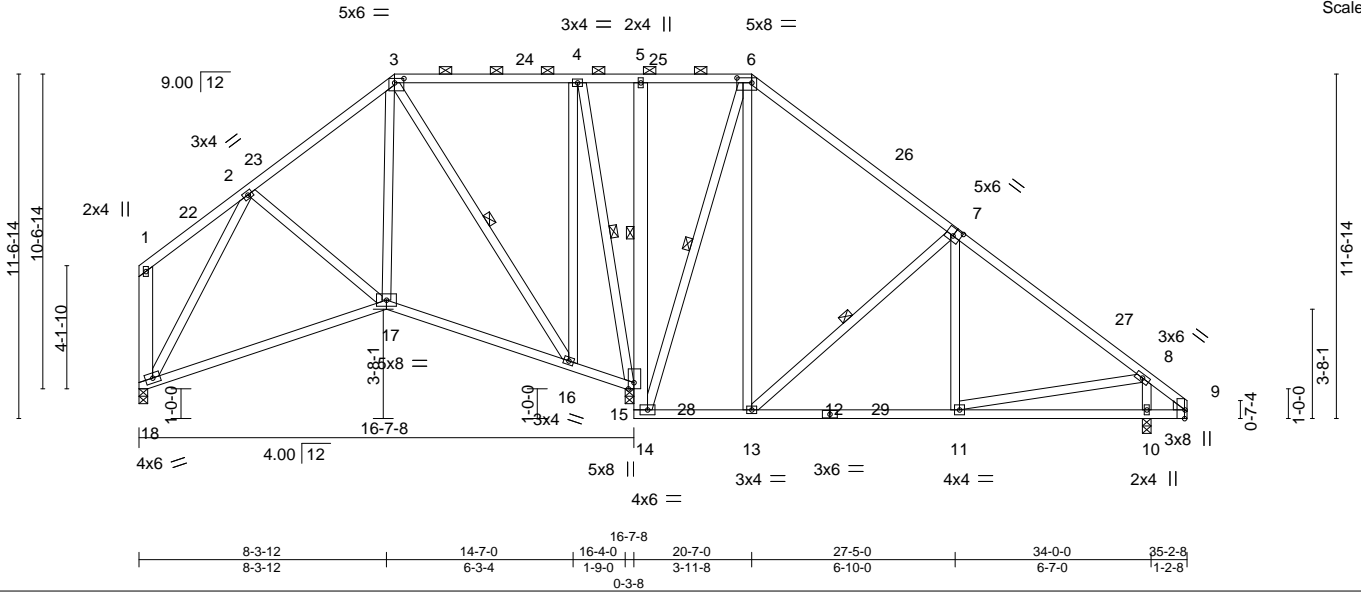


Plate Offsets (X,Y)-- [3:0-3-12,0-1-12], [6:0-6-0,0-2-0], [7:0-3-0,0-3-0], [9:0-3-8,Edge], [15:Edge,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.54	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.59	Vert(LL) -0.15 17-18 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.69	Vert(CT) -0.30 17-18 >651 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.04 15 n/a n/a		
				Weight: 292 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 1-18,5-14: 2x6 SP No.2  
 WEDGE  
 Right: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-11-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-16, 4-15, 6-14, 7-13, 5-14

**REACTIONS.**

(size) 15=0-3-8, 18=0-3-8, 10=0-3-8  
 Max Horz 18=-272(LC 13)  
 Max Uplift 15=-236(LC 9), 18=-202(LC 13), 10=-306(LC 13)  
 Max Grav 15=1407(LC 2), 18=724(LC 2), 10=999(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-622/245, 3-4=-237/304, 4-5=-149/327, 5-6=-158/336, 6-7=-523/360, 7-8=-935/340  
 BOT CHORD 17-18=-208/558, 16-17=-152/592, 15-16=-39/260, 13-14=0/267, 11-13=-141/647  
 WEBS 3-17=-106/558, 3-16=-561/188, 4-16=-92/559, 4-15=-783/245, 6-14=-646/78,  
 6-13=-126/601, 7-13=-543/247, 7-11=0/255, 2-18=-683/214, 8-11=-92/522,  
 8-10=-852/395, 14-15=-49/642

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 8-7-0, Exterior(2R) 8-7-0 to 12-9-15, Interior(1) 12-9-15 to 20-7-0, Exterior(2R) 20-7-0 to 24-9-15, Interior(1) 24-9-15 to 35-2-8 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 15, 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 15=236, 18=202, 10=306.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



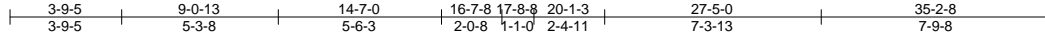
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 2145086	Truss T12G	Truss Type GABLE	Qty 1	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572643
----------------	---------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:27 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-SsYKwUD\_gaX9C6l1y2NjU3qOmTEhJXwwtrczSzw9fw



Scale = 1:77.9

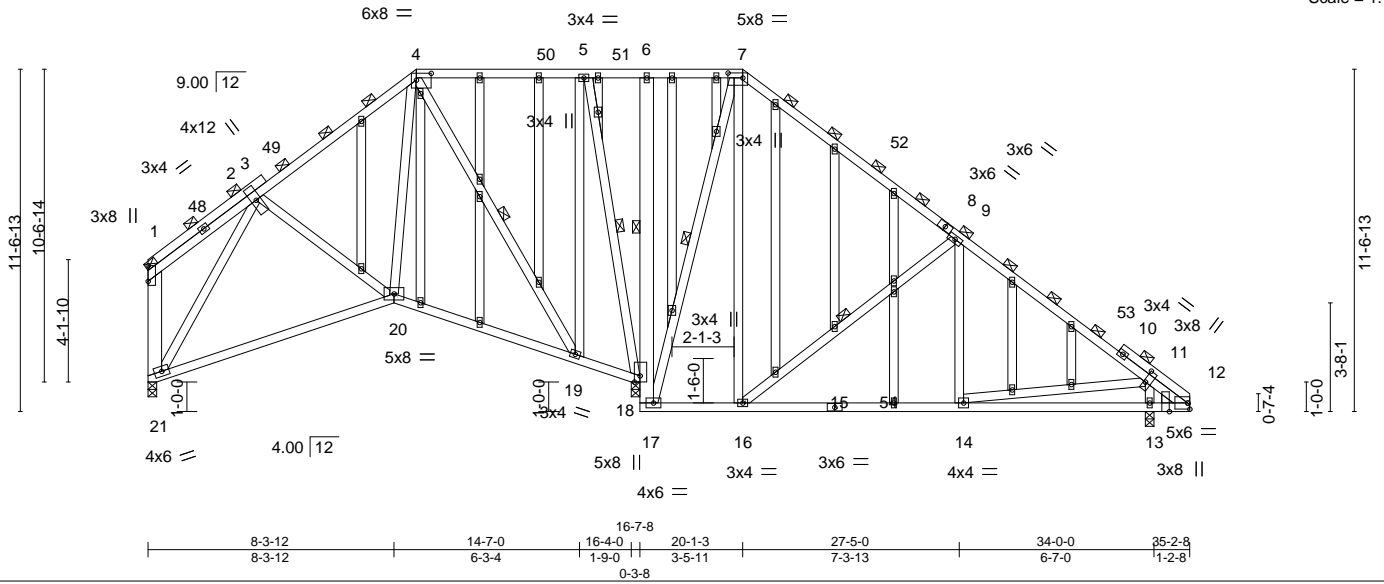


Plate Offsets (X,Y)-- [4:0-6-0,0-2-12], [7:0-6-0,0-2-0], [11:0-5-0,0-0-12], [12:0-3-8,Edge], [18:Edge,0-2-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.63	Vert(LL) -0.15	20-21	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.59	Vert(CT) -0.30	20-21	>651	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.69	Horz(CT) 0.04	18	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 404 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 1-21,6-17: 2x6 SP No.2  
 OTHERS 2x4 SP No.3  
 WEDGE  
 Right: 2x4 SP No.3

**BRACING-**

TOP CHORD 2-0-0 oc purlins (5-11-8 max.), except end verticals, and sheathed or 6-0-0 oc purlins: 4-7.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 4-19, 5-18, 7-17, 9-16, 6-17

**REACTIONS.**

(size) 18=0-3-8, 21=0-3-8, 13=0-3-8  
 Max Horz 21=-270(LC 13)  
 Max Uplift 18=-226(LC 9), 21=-200(LC 13), 13=-300(LC 13)  
 Max Grav 18=1404(LC 2), 21=712(LC 2), 13=969(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-4=-623/246, 4-5=-222/302, 5-6=-144/324, 6-7=-150/333, 7-9=-489/350,  
 9-11=-962/354, 11-12=-269/87  
 BOT CHORD 20-21=-222/595, 19-20=-144/554, 14-16=-162/682, 13-14=-136/316, 12-13=-157/335  
 WEBS 4-20=-115/586, 4-19=-574/191, 5-19=-99/585, 5-18=-778/241, 7-17=-679/94,  
 7-16=-123/595, 9-16=-601/264, 9-14=0/295, 2-21=-745/262, 11-14=-52/371,  
 11-13=-847/383, 17-18=-67/649

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 9-0-13, Exterior(2R) 9-0-13 to 13-3-12, Interior(1) 13-3-12 to 20-1-3, Exterior(2R) 20-1-3 to 24-4-2, Interior(1) 24-4-2 to 35-0-0 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 18, 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

Continued on Page 2, 13=300.

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, information, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	REED CONST. - MCDANIEL RES.	T29572643
2145086	T12G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:28 2023 Page 2  
 ID:HqPYDwS0IMBewR4XvSFurByNHot-w26j7pEcRufOpGKEbgZcFhc?8ApTQmn39XMOVuzw9fv

**NOTES-**

12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

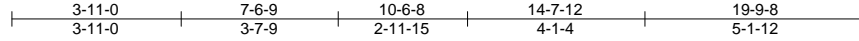
Job 2145086	Truss T13	Truss Type ROOF SPECIAL	Qty 1	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572644
----------------	--------------	----------------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:29 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-PEg5L9EECBntRQvQ9N4rov8GtaEu9J2DNB5y1Kzw9fu



Scale = 1:53.3

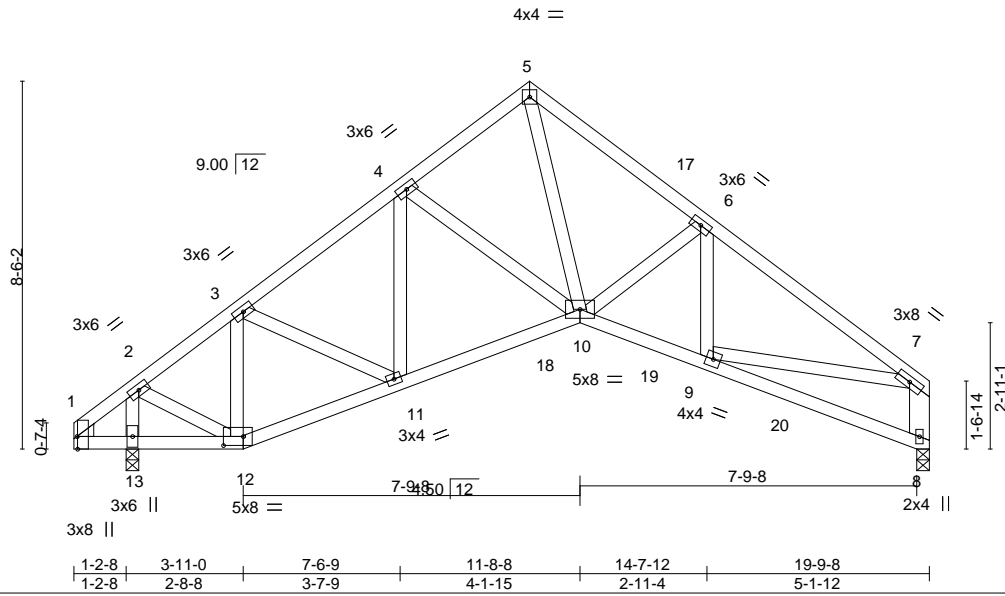


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [12:0-5-8,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.26	Vert(LL) 0.04 10-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.30	Vert(CT) -0.06 10-11 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.05 8 n/a n/a	Weight: 125 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 7-8: 2x6 SP No.2

WEDGE  
 Left: 2x4 SP No.3

**REACTIONS.**

(size) 8=0-3-8, 13=0-3-8  
 Max Horz 13=182(LC 9)  
 Max Uplift 8=-139(LC 13), 13=-169(LC 12)  
 Max Grav 8=724(LC 1), 13=841(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-662/406, 3-4=-893/548, 4-5=-752/445, 5-6=-995/589, 6-7=-1133/627,  
 7-8=-700/381  
 BOT CHORD 11-12=-314/532, 10-11=-311/715, 9-10=-389/901  
 WEBS 3-12=-401/178, 5-10=-551/796, 2-12=-325/583, 2-13=-746/419, 7-9=-383/770

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-6-8, Exterior(2R) 10-6-8 to 13-6-8, Interior(1) 13-6-8 to 19-6-12 zone; cantilever left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=139, 13=169.

This item has been electronically signed and sealed by OREGAN, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	REED CONST. - MCDANIEL RES.	T29572645
2145086	T13G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:30 2023 Page 1  
 ID:HqPYDwS0IMBewR4XvSFurByNH0tRETYVftzVvk3aUcj5b4K6hQB\_beumoMcrvZnz9ft



Scale = 1:53.5

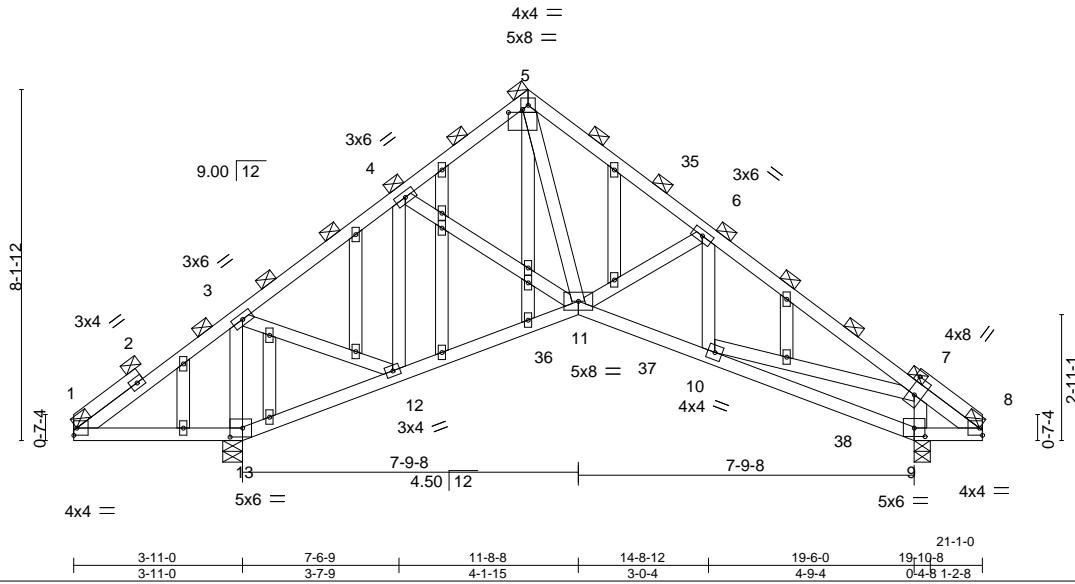


Plate Offsets (X,Y)-- [5:0-4-0,0-0-14], [7:0-5-0,0-1-12], [9:0-3-0,0-2-6], [13:0-3-8,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.27	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.25	BC 0.23	Vert(LL) 0.03 9-10 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.27	Vert(CT) -0.05 9-10 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.04 9 n/a n/a		
	Code FBC2020/TPI2014			Weight: 154 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3  
 OTHERS 2x4 SP No.3

**BRACING-**

TOP CHORD 2-0-0 oc purlins (5-11-8 max.).  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

(size) 13=0-5-8, 9=0-4-8  
 Max Horz 13=-177(LC 10)  
 Max Uplift 13=-200(LC 12), 9=-154(LC 13)  
 Max Grav 13=970(LC 1), 9=717(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-3=-184/291, 3-4=-467/243, 4-5=-546/274, 5-6=-717/357, 6-7=-919/442  
 BOT CHORD 12-13=-316/238, 11-12=-172/404, 10-11=-218/727  
 WEBS 3-13=-808/438, 3-12=-275/561, 4-12=-306/68, 5-11=-300/492, 7-10=-299/710, 7-9=-628/305

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-6-8, Exterior(2R) 10-6-8 to 13-6-8, Interior(1) 13-6-8 to 21-1-0 zone; cantilever left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=200, 9=154.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

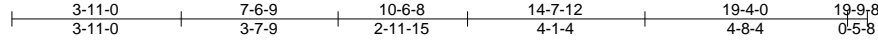
Job 2145086	Truss T14	Truss Type ROOF SPECIAL	Qty 2	Ply 1	REED CONST. - MCDANIEL RES.	T29572646
----------------	--------------	----------------------------	----------	----------	-----------------------------	-----------

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:32 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-ppMDzBH7U69Site?qWeYQXmn6nFbMgnf49Kcefzw9fr



Scale = 1:53.3

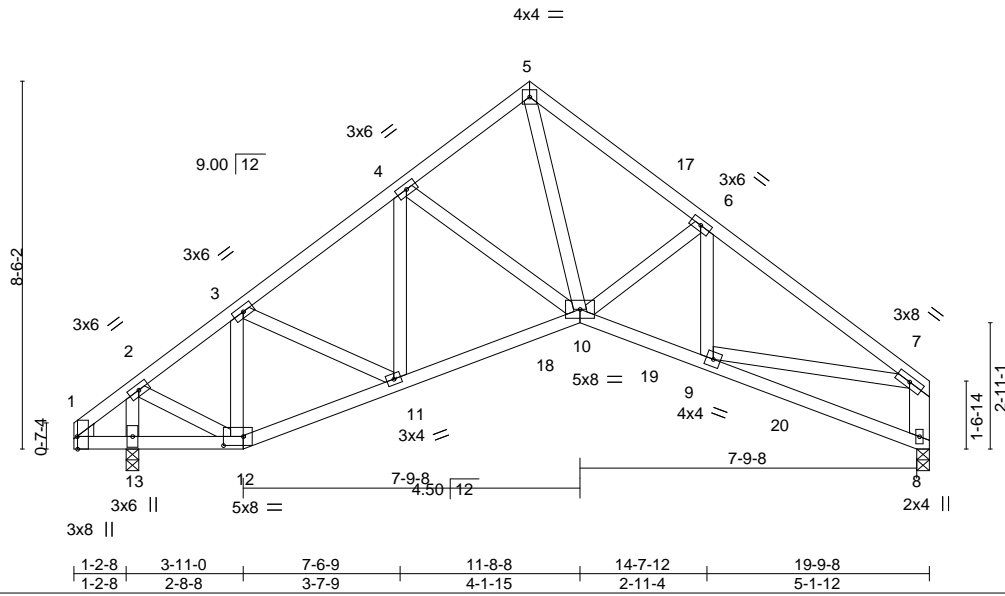


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [12:0-5-8,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.26	Vert(LL) 0.04 10-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.30	Vert(CT) -0.06 10-11 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.05 8 n/a n/a		
				Weight: 125 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 7-8: 2x6 SP No.2

WEDGE  
 Left: 2x4 SP No.3

**REACTIONS.**

(size) 8=0-3-8, 13=0-3-8  
 Max Horz 13=182(LC 9)  
 Max Uplift 8=-139(LC 13), 13=-169(LC 12)  
 Max Grav 8=724(LC 1), 13=841(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-662/406, 3-4=-893/548, 4-5=-752/445, 5-6=-995/589, 6-7=-1133/627,  
 7-8=-700/381  
 BOT CHORD 11-12=-314/532, 10-11=-311/715, 9-10=-389/901  
 WEBS 3-12=-401/178, 5-10=-551/796, 2-12=-325/583, 2-13=-746/419, 7-9=-383/770

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TC DL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-6-8, Exterior(2R) 10-6-8 to 13-6-8, Interior(1) 13-6-8 to 19-6-12 zone; cantilever left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=139, 13=169.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

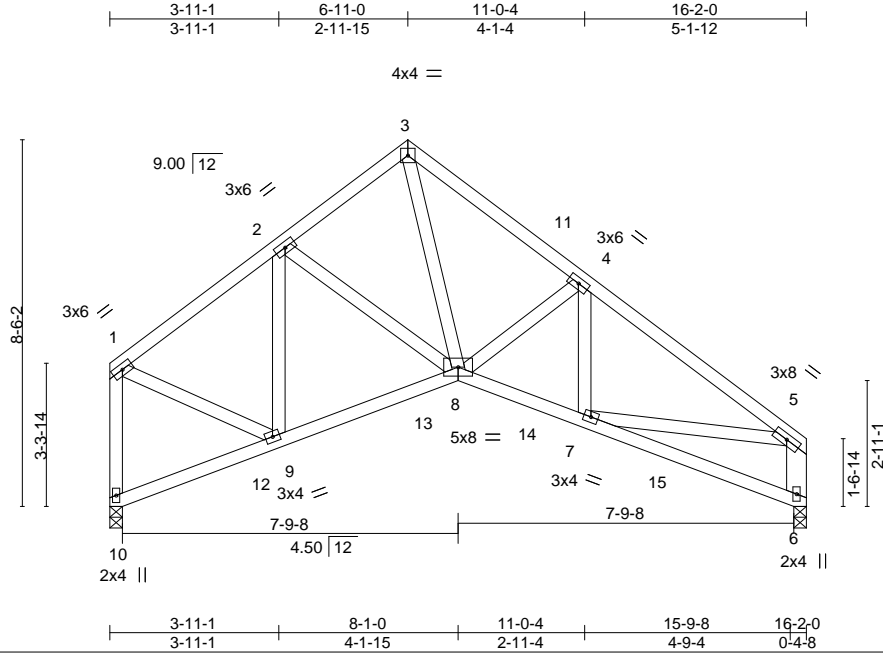
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 2145086	Truss T15	Truss Type SCISSORS	Qty 3	Ply 1	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572647
----------------	--------------	------------------------	----------	----------	---	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:33 2023 Page 1  
 ID:HqPYDwS0IMBewR4XvSFurByNH0vCBXHFQHW1DBOD9nylJyrBcC58xpip39A5zw9fq



Scale = 1:53.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.25	Vert(LL) 0.03	6-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.25	BC 0.24	Vert(CT) -0.05	6-7	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.25	Horz(CT) 0.04	6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 107 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-8-9 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 5-6: 2x6 SP No.2	

**REACTIONS.** (size) 10=0-3-8, 6=0-3-8  
 Max Horz 10=-154(LC 8)  
 Max Uplift 10=-130(LC 13), 6=-115(LC 13)  
 Max Grav 10=632(LC 1), 6=632(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-586/373, 2-3=-605/379, 3-4=-788/492, 4-5=-954/560, 1-10=-604/365,  
 5-6=-607/351  
 BOT CHORD 8-9=-160/483, 7-8=-320/753  
 WEBS 3-8=-446/582, 5-7=-324/631, 1-9=-267/449

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-11-0, Exterior(2R) 6-11-0 to 9-11-0, Interior(1) 9-11-0 to 15-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Bearing at joint(s) 10, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=130, 6=115.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

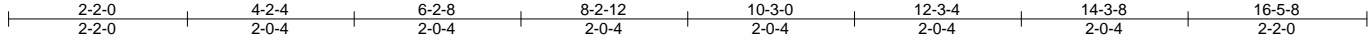
Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

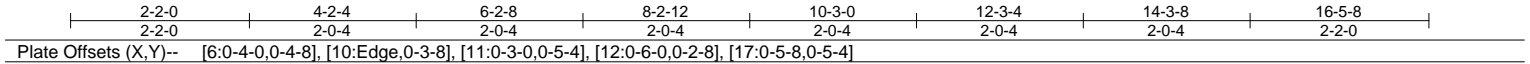
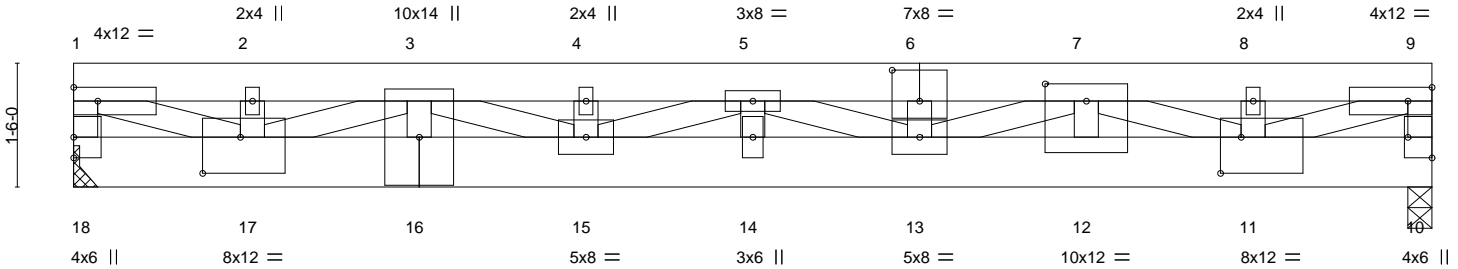
Job 2145086	Truss TFG01	Truss Type FLOOR	Qty 1	Ply 3	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572648
----------------	----------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:34 2023 Page 1  
ID:HqPYDwS0IMBewR4XvSFurByNH0t-ICT\_OTIN0kPAXBnNyxg0Vys4ybtPqRVyXTpjiYzw9fp



Scale = 1:27.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.41	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.56	Vert(LL) -0.24 14 >805 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.87	Vert(CT) -0.33 14 >589 240		
BCDL 5.0	Code FBC2020/TP12014	Matrix-MS	Horz(CT) 0.04 10 n/a n/a		
				Weight: 349 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP M 26	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 18=Mechanical, 10=0-3-8  
Max Grav 18=5490(LC 1), 10=6231(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-18=-4694/0, 1-2=-9081/0, 2-3=-9081/0, 3-4=-20058/0, 4-5=-20058/0, 5-6=-20058/0, 6-7=-20058/0, 7-8=-9081/0, 8-9=-9081/0, 9-10=-4694/0  
BOT CHORD 17-18=0/786, 16-17=0/16324, 15-16=0/16324, 14-15=0/21909, 13-14=0/21909, 12-13=0/16324, 11-12=0/16324, 10-11=0/786  
WEBS 1-17=0/9199, 2-17=-390/0, 3-17=-8032/0, 3-16=0/858, 3-15=0/4141, 4-15=-450/0, 5-15=-2053/0, 5-14=0/879, 5-13=-2053/0, 6-13=-450/0, 7-13=0/4141, 7-12=0/858, 7-11=-8032/0, 8-11=-390/0, 9-11=0/9199

- NOTES-**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Refer to girder(s) for truss to truss connections.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 737 lb down at 2-1-12, 737 lb down at 4-1-12, 737 lb down at 6-1-12, 737 lb down at 8-1-12, 737 lb down at 10-1-12, 737 lb down at 12-1-12, and 737 lb down at 14-1-12, and 741 lb down at 16-3-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.


**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 1-9=-350(F=-250), 10-18=-10  
Concentrated Loads (lb)  
Vert: 10=-741(B) 17=-737(B) 16=-737(B) 15=-737(B) 14=-737(B) 13=-737(B) 12=-737(B) 11=-737(B)

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

January 12, 2023

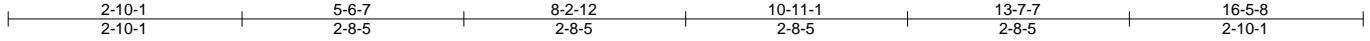
<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b> Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 16023 Swingley Ridge Rd Chesterfield, MO 63017
---	--

Job 2145086	Truss TFG02	Truss Type FLOOR	Qty 1	Ply 2	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572649
----------------	----------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:35 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-DO1MbDJ?n1X19LMaVeBF1AOGQ?FVZvd5m7YGF\_zw9fo



Scale = 1:28.0

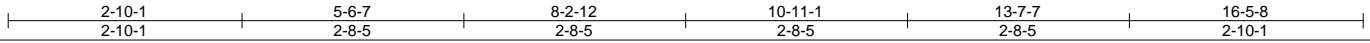
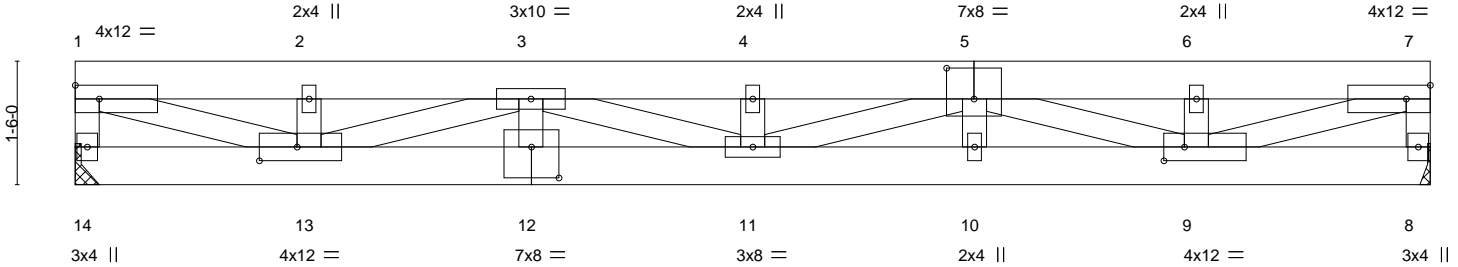


Plate Offsets (X,Y)-- [5:0-4-0,0-4-8], [9:0-3-0,0-2-0], [12:0-4-0,0-4-8], [13:0-5-8,0-2-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.37	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.44	Vert(LL) -0.20 11 >958 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.81	Vert(CT) -0.28 11 >697 240		
BCDL 5.0	Code FBC2020/TP12014	Matrix-MS	Horz(CT) 0.04 8 n/a n/a		
				Weight: 210 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP M 26  
 BOT CHORD 2x6 SP M 26  
 WEBS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 14=Mechanical, 8=Mechanical  
 Max Grav 14=2910(LC 1), 8=2910(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-14=-2674/0, 1-2=-5799/0, 2-3=-5799/0, 3-4=-10568/0, 4-5=-10568/0, 5-6=-5803/0, 6-7=-5803/0, 7-8=-2675/0  
 BOT CHORD 13-14=0/451, 12-13=0/9420, 11-12=0/9420, 10-11=0/9423, 9-10=0/9423, 8-9=0/451  
 WEBS 1-13=0/5734, 2-13=-844/0, 3-13=-3882/0, 3-11=0/1231, 4-11=-891/0, 5-11=0/1229, 5-9=-3880/0, 6-9=-847/0, 7-9=0/5738

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Refer to girder(s) for truss to truss connections.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
 Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard  
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 1-7=-350(F=-250), 8-14=-10

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

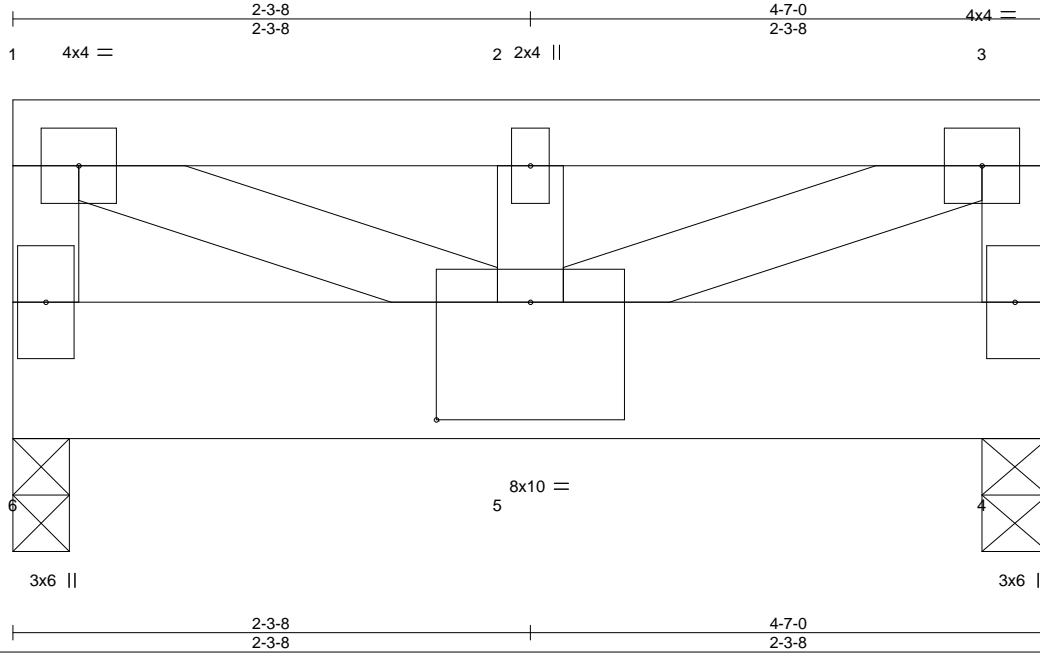


Job 2145086	Truss TFG03	Truss Type FLOOR	Qty 1	Ply 2	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572650
----------------	----------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:35 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-DO1MbDJ?n1X19LMAVeBF1AOJ2?JRZ\_H5m7YGF\_zw9fo



Scale = 1:10.2

Plate Offsets (X,Y)-- [5:0-5-0,0-6-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.14	Vert(LL) -0.01	5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.19	Vert(CT) -0.02	5	>999	240		
BCLL 0.0	Rep Stress Incr NO	WB 0.51	Horz(CT) -0.00	4	n/a	n/a		
BCDL 5.0	Code FBC2020/TPI2014	Matrix-MP					Weight: 59 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x8 SP 2400F 2.0E  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-7-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 6=0-3-0, 4=0-3-8  
 Max Grav 6=1686(LC 1), 4=1686(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-6=-1071/0, 1-2=-1928/0, 2-3=-1928/0, 3-4=-1071/0  
 WEBS 1-5=0/2147, 3-5=0/2147

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.  
 Strongbacks to be attached to walls at their outer ends or restrained by other means.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2900 lb down at 2-0-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 1-3=-100, 4-6=-10  
 Concentrated Loads (lb)  
 Vert: 5=-2900(B)

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



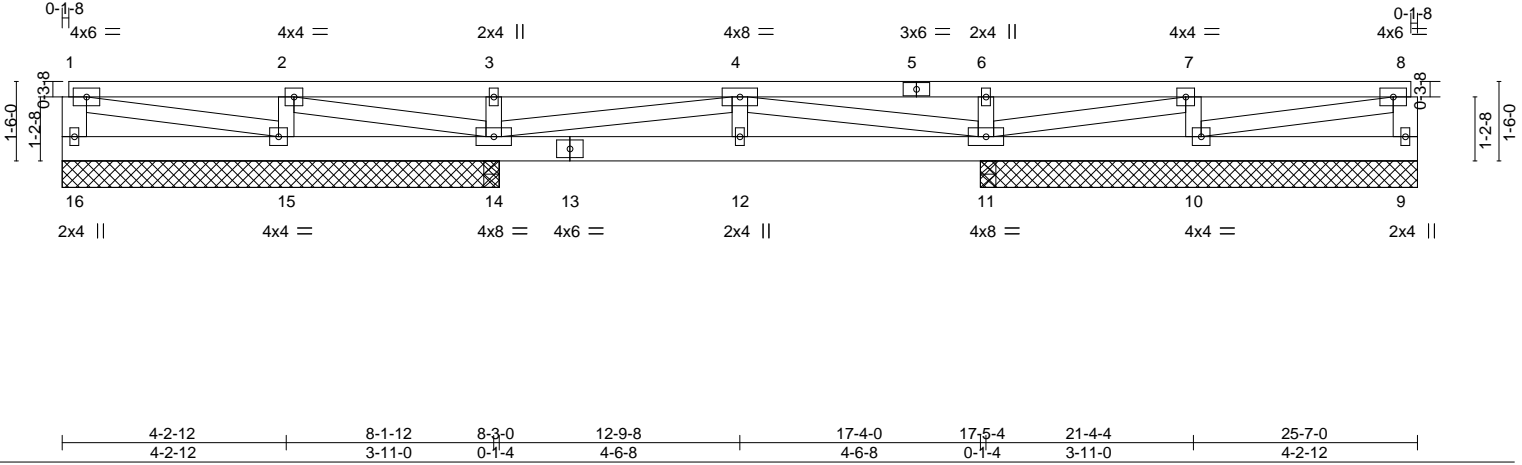
Job 2145086	Truss TFKW1	Truss Type FLOOR	Qty 1	Ply 2	REED CONST. - MCDANIEL RES. Job Reference (optional)	T29572651
----------------	----------------	---------------------	----------	----------	---	-----------

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Aug 11 2022 MiTek Industries, Inc. Thu Jan 12 07:58:36 2023 Page 1

ID:HqPYDwS0IMBewR4XvSFurByNH0t-hbbkpZKdYLFunVxm3LiUaNxMgOb2lUpF\_nlqnQzw9fn



Scale = 1:43.5



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	2-0-0 Plate Grip DOL 1.00	TC 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.42	Vert(LL) -0.04 12 >999 360		
BCLL 0.0	Rep Stress Incr NO	WB 0.30	Vert(CT) -0.05 12 >999 240		
BCDL 5.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.01 9 n/a n/a		
				Weight: 283 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3 \*Except\*  
 1-16,8-9: 2x6 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

All bearings 8-3-0.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) except 16=388(LC 1), 9=388(LC 1), 15=1035(LC 3), 14=1947(LC 1), 14=1947(LC 1), 11=1960(LC 4), 11=1947(LC 1), 10=836(LC 1)

**FORCES.**

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-16=-362/0, 2-3=0/406, 3-4=0/406, 4-6=0/411, 6-7=0/411, 8-9=-351/0  
 BOT CHORD 12-14=0/1657, 11-12=0/1657  
 WEBS 2-15=-989/0, 2-14=-356/0, 3-14=-1105/0, 4-14=-2123/0, 4-11=-2128/0, 6-11=-1105/0, 7-11=-364/0, 7-10=-835/0

**NOTES-**

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced floor live loads have been considered for this design.
- The Fabrication Tolerance at joint 5 = 20%, joint 13 = 20%
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 9-16=-10  
 Trapezoidal Loads (plf)  
 Vert: 1=-220-to-4=-265, 4=-265-to-8=-220

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
 MiTek Inc. DBA MiTek USA FL Cert 6634  
 16023 Swingley Ridge Rd. Chesterfield, MO 63017  
 Date:

January 12, 2023

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

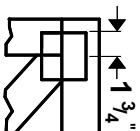
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



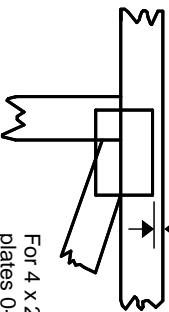
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

\* Plate location details available in **MITek 20/20 software** or upon request.

## PLATE SIZE

4 X 4

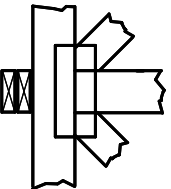
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

## BEARING



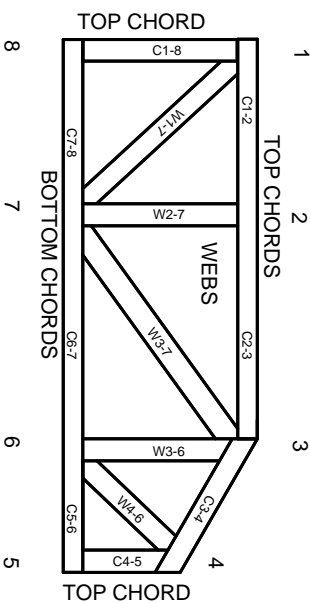
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



**JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.**

**CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.**

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MITek® All Rights Reserved

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T or I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.



MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020